

**WILD ABANDON AND A NEW FRONTIER:  
CONVERTING VACANT RAILWAYS INTO URBAN GREENWAYS**

by

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## **ABSTRACT**

The restoration of the Chelsea High Line in New York City has received numerous design accolades and injected new life into the fields of horticulture and landscape architecture. Its sleek lines and lush new-wave plantings have dazzled millions of admirers since the first section opened in 2009. In addition to the High Line, four other former railways in various stages of conversion into parkland were studied in this research: Philadelphia's Reading Viaduct, Paris' Promenade Plantée, Natur Park Südgelände in Berlin, and the Bridge of Flowers in Shelburne Falls, Massachusetts. Each site was assessed so as to propose a unique protocol for railway redevelopment, including the development, management, and neighborhood impact of rail line parks. While visiting and incorporating several lesser-known projects, research focused on specific ingredients that resulted in parkway actualization. Research describes challenges and successes, and provides recommendations for potential linear parks in urban areas.

Each site was visited in 2011. Interviews were conducted with park staff and members of founding groups, the defining features of each site were recorded, and essential details relating to project start up, implementation, and maintenance were catalogued. This led to an articulation of the overall challenges and successes of the five models. Interviews with original park advocacy group members at each site were of particular value, as they provided proven strategies and pitfalls when promoting a new railway park. In conclusion, the success for each project has invariably been



contingent on the park advocacy group's ability to build constituency, develop resources, and negotiate the greater political arena.

## **Chapter 1**

### **INTRODUCTION**

Vacant railways can be traced throughout many urban communities. They are sometimes forgotten, and often regarded as blight on the neighborhood. However, the overwhelming success of the Chelsea High Line in New York City has inspired communities to focus on repurposing their own derelict lines into public parkland. The abandoned railway was one step away from demolition until Chelsea residents Joshua David and Robert Hammond formed the Friends of the High Line in 1999 and launched a campaign to save it (Dunlap, 2002). Using Paris' viaduct parkway, the Promenade Plantée, as precedent, the two community activists worked strategically to build a network of support for the project that eventually led the park into actualization. Similarly applicable strategies for track redevelopment can be drawn from groups that have banded together to revegetate lines in Massachusetts, Philadelphia, Paris, and Berlin. Redevelopment success for each project has invariably been contingent on the advocacy group's ability to build constituency, develop resources, and negotiate the greater political arena.

After endless political maneuvering and stakeholder courtship, the High Line today is a remarkable success. Its sleek lines and lush new-wave plantings have received numerous accolades and injected new life into the fields of horticulture and

landscape architecture. Developers from around the world pay tribute to the greenway, and millions of admirers have visited since its first section opened in 2009 (Fisher, 2012). The Whitney Museum of American Art is constructing its new branch under the High Line at 17<sup>th</sup> street, and a dozen condominiums now hug the green stretch in the Meatpacking District (Martin, 2009). Officials in Philadelphia, Chicago, and Jersey City have taken notice and have begun seeing potential in their own abandoned viaducts (Taylor, 2010).

The Friends of the High Line developed an admirable leadership model. The co-founders built a legion of supporters that included an array of powerful professionals, politicians, and celebrities. They were selfless, genuine, and deeply determined to see the proposal to the end. An *AIArchitect* article describing the High Line, the Reading Viaduct, and several other railway parks highlights how these projects are converting park advocates into eventual stewards.

But what's most innovative about these projects is how they are fueled and sustained by community involvement and associated nonprofits. It's a bold new model, one that bypasses the traditional role of city government in implementing and maintaining public space. And it calls on community members to be more than activists, and to step forward as planners, fundraisers, marketers, and managers, too (Moses, 2011).

Adapting a railroad into a park can quickly develop into a bureaucratic nightmare. The High Line was debated for upwards of ten years before the Friends were able to overcome obstacles with obtaining the property and marketing the park as a public amenity (Satow, 2007). Furthermore, railroads are often contaminated with heavy metals and other chemical residuals following decades of pesticide applications. The

lead-base rails and toxic chemicals in the soil substrate need to be remediated before opening to the public (Saffron, 2004). The costs associated with environmental remediation and restructuring an industrial space are higher than most parks and recreation departments can afford. The management structure organized by the Friends of the High Line followed the path of the Central Park Conservancy. Under the jurisdiction of the New York City Parks Department, the Friends manage the Line and raise the majority of the operational funds each year (David and Hammond, 2011).

The Promenade Plantée was tremendously helpful to the Friends of the High Line as the prototype for railway adaptive reuse. “When we were beginning to take the High Line around, being able to point to the Promenade Plantée was huge to us. It’s exciting that the High Line can act in the same way — be something that other projects can point to and say, ‘This may sound unusual, but look, they’ve done it here, and look how successful it is” (Harvey, 2012). The Promenade Plantée, also known as the “Coulée Verte,” is the highly designed former railway viaduct in Paris. The Promenade includes four kilometers of carefully maintained plantings through a previously degraded quarter in the eastern section of the city (Viard, 2011).

In the late eighties, the Municipality of Paris gained control of the line and began converting the viaduct’s dark and graffiti-covered archways into sixty small shops and studios (Mezzina, 2003). Artisans and entrepreneurs nestled under the masonry arches form the “Viaduc des Arts.” The popularity of the Viaduc des Arts and the Promenade helped to reinvigorate the economy of Paris’ 12<sup>th</sup> district. The park presents an alternative leadership model to the community activist approach, as it was conceptualized and promoted by the Council of Paris. Significant details

regarding the arrangement of the Viaduc des Arts, planting maintenance, and visitor management in Paris are valuable themes to share with emerging railway projects.

Philadelphia's neglected Reading Viaduct contains archways similar to the Promenade Plantée with potential to serve the city's dynamic arts community. Its steel trestles loom through ten blocks of the Callowhill and Chinatown North neighborhoods. Abandoned warehouses and remains of the city's industrial heritage characterize the newly dubbed "Loft District," one of the last empty residential pockets adjacent to center city (Levy, 2011). The Viaduct is the highly visible, defining feature of the neighborhood, covering seven total acres just beyond the Vine Street Expressway. Its four tracks are overgrown with a variety of grasses and dense shrubs along the trash-strewn embankment sections and bridges. Spectacular views of the city frame the line and it is surprisingly quiet despite the traffic below.

The Reading Viaduct advocates have met similar challenges that troubled the Friends of the High Line. Obstacles include an stymied attempt to create a revenue-generating improvement district, the call to balance a demand for more affordable housing along with green space, and an eternity of red tape surrounding Viaduct ownership (Sylvestro, 2011). However, the project has considerable popular support and has received funding to design a preliminary section. The Reading Viaduct is an interesting case study, both for the variety of organizations involved in the project, and the potential inherent to the site. The seeds have been sown for a high-impact, much-needed park in Philadelphia.

Another European precursor to the High Line, Natur Park Südgelände, is a magical forty-five-acre former marshall yard in former West Berlin. The extensive site has evolved into a highly diverse ecosystem since train service halted in 1952.

Opened to the public in 2000, the park has since been protected as the Schöneberger Südgelände landscape and nature conservation area. Visitors wind their way along designated soil-filled tracks through haunting rail industry relics (Kowarik, 2005). Südgelände was developed with minimal intervention beyond building pathways through the forest and meadows. This light design requires little maintenance and preserves much of the shift yard's historical character. The original founding group's narrative is similar to the story of the Friends of the High Line. The "Citizens Group" was composed of influential professionals who cultivated popular support for the project, confounded plans to raze the existing site, and secured funding for its redevelopment into public space (Letzner, 2011).

The Bridge of Flowers in Shelburne Falls, Massachusetts represented another key research site. The trolley bridge over the Deerfield River was reclaimed from dereliction by The Women's Club in the 1920s and planted into a lovely pedestrian walkway. Over eighty years later, the flower-covered bridge is still a popular tourist destination and remains the signature feature of Shelburne Falls. The Bridge serves as a community center, with local artists and school groups periodically involving themselves in events, gardening, and beautification efforts (Bridge of Flowers, 2010). Leaders at the Bridge of Flowers have deep roots in the area, and like the Friends of the High Line, have hired engineers to assist in securing preservation funding. The organization includes a roster of generous donors and enthusiastic supporters after many years of community engagement (Taylor, 2011).

This research explores how railroad parks bring industrial history to life and transform public impressions of abandoned spaces. This study was unique in that very little literature was found comparing establishment protocols for converting

abandoned rail lines into public parks. A review yielded numerous publications relating to the High Line, but few comparing the management, operation, and context of railway parks around the world. The objective for this thesis was to compare project challenges and successes in order to create a unique body of information and recommendations for potential linear parks to reference along their path to completion.

## Chapter 2

### LITERATURE REVIEW

#### Urban Planning and Design

There has been considerable research focusing on public space in the urban realm. Jane Jacobs' *The Death and Life of Great American Cities* is a classic study of great urban places. The writing has been referred to as "...perhaps the most influential single work in the history of town planning" (Fulford, 1992). Her manifesto celebrates street life as a "ballet" and establishes the blueprint for humanistic urban planning theory (Jacobs, 1961). In *The Granite Garden*, Anne Whiston Spirn acknowledges the city as a place for people, and advances to illustrate how urban landscapes are also part of the natural world. Spirn details the ecological processes taking place in urban environments, from wind patterns, to the water cycle, to animal and plant life (Spirn, 1984). Her work has inspired planners and designers to reexamine the elements of a truly livable city.

In 1980, *The Social Life of Small Urban Spaces* by William Whyte launched a mini revolution surrounding the planning and study of public space. Whyte's book catalogues the ingredients of successful small-scale parks and plazas in urban areas while exploring good, bad, and ugly examples. Descriptions reach from desolate



sunken courtyards to vibrant, sunny commons. Whyte outlines the key personalities, features, and design strategies that attract people to a public spaces, and provides advice on how to keep people coming back. He asserts, “It is hard to design a space that will not attract people. What is remarkable is how often that has been accomplished” (Whyte, 1980). The work is now a standard text in urban planning, environmental design, and architectural courses worldwide.

### Adaptive Reuse of Industrial Sites

Planners and designers have long been experimenting with adapting and reusing industrial spaces (Luther, 2004; Southworth, 2001). In a study entitled, *Unearthing the benefits of brownfield to green space projects: An examination of project use and quality of life impacts*, Christopher De Sousa examines the human relationship with former brownfields (2006). The broader topic of readapting vacant land has recently been gaining priority in planning circles in Philadelphia and many other formerly industrial cities (PennPraxis, 2010). Looking closely at the evolution of industrial land into urban wilderness, Natur Park Südgelände represents an intriguing example of urban forestry. This is indicated in studies related to urban plant succession (Diemer, 2003; Girot, 2004; Keenan, 2008).

### Economic and Hedonic Effects of Urban Greenways

Economic impact studies have developed into an important component of park advocacy. The influence of public green space on adjacent property values has been thoroughly explored. The economic influence of parkland is also used in comparison to a hedonic price model, relating to the pleasure citizens draw from urban parks (Lindsey, 2004; Moranco, 2003). The concept of an urban “greenway” has also been analyzed for its economic influence (Lindsey, 1999). In, *Greenways: The Cents Behind Going Green*, Oaksford cites the High Line within a greater argument for “greenbelts.” The essay advocates for “corridor creation,” for higher land values and improved quality of life for residents and visitors (2006).

### Best Practices for Converting Vacant Railways

The High Line effectively started the conversation concerning the development of vacant rail lines into urban parks. A media darling since its inception, the Line has graced the pages of dozens of major publications from the New York Times to National Geographic. In 2011, the High Line co-founders, Joshua David and Robert Hammond, released a tell-all memoir of how the Park came into existence. In *High Line, The Inside Story of New York City’s Park in the Sky*, David and Hammond outline the obstacles they encountered and strategies for moving past them (David and Hammond, 2011). It is an incredibly helpful text for community organizers to reference in advancing parks projects. David and Hammond illustrate how to build a

coalition, work with opponents, and cultivate an impressive and intimidating fundraising model to launch a project (La Farge, 2011).

### Examples of Revegetated Rail Lines

Inevitably, there is also an abundance of information on the High Line throughout the blogosphere (Baldwin, 2009). Academia has explored the park's implications on everything from real estate values to lighting design (Oaksford, 2006; Kayatasky, 2004). Joel Sternfeld's seminal portfolio documenting the undeveloped High Line over several years is credited with launching the site into reality (Sternfeld, 2001). His striking images combined with an economic impact study and Richard Stalter's extensive botanical survey, *The Flora of The High Line, New York City, New York* identified the site as a valuable New York City resource (Stalter, 2004). The international design competition that followed is documented in *To Rally Discussion: the Chelsea High Line* (Hardy, 2004).

The most compelling articles on the High Line draw connections to its counterparts, both locally and internationally. Such writings are uncommon, and a complete comparison on revegetated rail lines remains unpublished. A 2010 *New York Times* article singles out the Bloomingdale Trail, the Reading Viaduct, and Jersey City's Harsimus Embankment, reasoning, "...now New York's accomplishment is providing ammunition for boosters while giving skeptics much-needed evidence of the potential for success. The High Line has become, like bagels

and CompStat, another kind of New York export” (Taylor). The concept has established a valuable precedence for innovation in the public landscape, as the Promenade Plantée has done before. High Line co-founder Joshua David frequently refers to the Parisian garden as a source of inspiration (David, 2001).

The High Line’s muse, the Promenade Plantée, is referenced in design journals, although they are rarely written in English; however, translations of pertinent references were an important component of this research. The Promenade is seldom referenced independent of the High Line in English language literature. Another reference, *The Romance of Abandonment: Industrial Parks*, explores both the High Line and the Promenade in advocating for the “intelligent reuse of industrial sites” (Hardy, 2005). The viaducts are juxtaposed with other aging relics to illustrate how industrial sites are most successfully restored by preserving elements of their rugged character. A graduate student at the Yale School of Forestry and Environmental study published a comparison of the fundamentals of the Promenade and the High Line, just as the latter was gaining momentum (González-Campaña, Javier 2002). This comparative study includes the historical background of the two sites, images, maps, and general site specifications. Although obscure, the report was an excellent prelude to this thesis.

Projects that have yet to be grouped with the High Line and the Promenade Plantée include the Natur Park Südgelände, Bridge of Flowers, and the Reading Viaduct. These sites provided a compelling opportunity for research when considered together for the thesis. Mention of the Bridge of Flowers is virtually nonexistent in

academic literature, much less the realm of popular media. The Bridge has an active website detailing project history, upcoming events, and vintage images (Bridge of Flowers, 2010). There is a thorough exploration of Südgelände in *Wild Urban Woodlands: New Prospective for Urban Forestry*, a collection of essays on post-industrial wilderness (Kowarik et al., 2005). It is otherwise difficult to find English language literature describing Natur Park Südgelände.

The Reading Viaduct has attracted greater attention in the past years with the advancing proposal. It is referenced in the *Philadelphia Inquirer*, and has been the subject of planning studies through the University of Pennsylvania, the City of Philadelphia, and Center City District (Randall, 2008; Neighborhood Design Group, 2004; Jones Lang LaSalle, 2010). Inga Saffron provides an outline of the Viaduct's condition in the *Philadelphia Inquirer* article, "Making an Old Viaduct Viable Again" (Saffron, 2004). In 2011 the *Inquirer* also published a series of articles following the political activity surrounding the Center City District Viaduct proposal. *The Architect's Newspaper* detailed the Viaduct's ownership struggles in the article, "Rolling Out, Philly's elevated railway is struggling to become a High Line" (Sylvestro, 2011). In 2011, there was also an intense amount of internet speculation surrounding the proposed Reading Viaduct project. The railway background has also been scrutinized by VIADUCTgreene, an advocacy group for the line's conversion into parkland whose VIADUCTgreene website provides a comprehensive history of the railroad and its environs (VIADUCTgreene, 2012).

## Chapter 3

### MATERIALS AND METHODS

This research compared several rail line parks in order to develop best practice models for launching future projects. Research methodologies specifically investigated the selected parks' abilities to build constituency and resources, act strategically to navigate the political setting, and develop a safe, manageable, and inspirational design. Qualitative methods captured the “how and why” of railway conversion from original park supporters, current park staff, and professionals in related fields. Data collection included observations, interviews, document analysis, and audio-visual materials (Creswell, 2009).

After initial discussions with professionals in the horticultural, parks, and design fields, six purposefully selected sites were chosen for comparison. Each site was either currently or formerly abandoned railway property, preferably elevated, and were characterized by the following purposely selected criteria:

*For potential projects:*

- Redevelopment potential as public green space
  - According to accessibility, community needs, and social context
- Increasing public interest in project development

*For existing sites:*

- Economic and cultural influence
- Accessibility to a diversity of visitors

*All selected sites included:*

- Geographic diversity, when grouped together
- Availability of core support staff for interview
- Accessibility for potential site visits
- Unusual design features
- A compelling historical narrative

The parks were organized into three research categories. “Existing Sites” included the Promenade Plantée, Natur Park Südgelände, and the Bridge of Flowers in Paris, Berlin, and Shelburne Falls, Massachusetts, respectively. The “Work in Progress” and “Potential Project” research areas complemented this category. The High Line in New York City represented a “Work in Progress,” as its final segment was moving through planning phases during the investigation. The Reading Viaduct in Philadelphia and was explored as a “Potential Project,” as it was in the proposal phase throughout this research. These distinctions illustrated the progression of rail projects from their initial conception into celebrated public parks.

### Qualitative Research Methods

Each selected site was studied using a “flexible, open ended” approach to determine the “meanings and views” held by interviewed staff (Turner, 2010). Each project was comparatively reviewed using interviews and observations of the individuals involved, activities on site, and the greater overall context. This field research was augmented by related publications, public media reports, and site-specific maps, images, and marketing materials.

Field research began at the Bridge of Flowers in Cambridge Falls, Massachusetts in April 2011. The Promenade Plantée in Paris and Natur Park Südgelände in Berlin were later documented in June 2011 over the course of one week. Investigation at the High Line continued throughout July, August, and into the fall. Observations of the Reading Viaduct in Philadelphia occurred throughout 2011, with final interviews conducted during the month of December.

### Human Subjects Review Board

The study followed the research guidelines, regulations, and procedures outlined by the University of Delaware Human Subjects Review Board (HSRB). The investigator attended University of Delaware Human Subjects Training during the fall of 2010. A project proposal and synopsis of all potential research tools were submitted in advance for HSRB review prior to data collection in the spring of 2011. Ultimately, exemption from Human Subjects review was granted. The exemption approval letter from the HSRB review board can be found in Appendix E.



## Interviews

Stakeholders from each site were selected for interviews, which were arranged with founding members of park advocacy groups, horticultural directors, local bloggers, gardeners, tour guides, urban ecologists, landscape designers, marketing directors, educational program directors, and other related professionals. Fifteen interviews were conducted on site, while the remainder occurred via telephone. Discussions ranged from 30 to 90 minutes. Interactive field sessions were digitally recorded and later transcribed for subsequent analysis. Telephone conversation transcriptions were also analyzed for reoccurring themes.

This research employed a general interview guide approach, which granted flexibility to modify the approach given participant responses and the tone of the discussion. Site visits also included informal conversational interviews, recorded during park tours. Personal interaction with the interviewee often guided data collection more than specifically prepared questions (Turner, 2010).

Interview questions for each scheduled site visit explored:

- Prior ownership and hurdles to ownership transfer
- Project costs associated with startup, implementation, and daily operations
- Strategies for cultivating community engagement, professional partnerships, and political support
- Development approach, on-site revenue sources, and government grants
- Cost and plan of action involving track contamination and remediation
- Site context and accessibility

- Influence of park design on overall maintenance costs
- Educational programs: formal and informal
- Day to day operations, management, and staffing
- Visitor experience and support infrastructure

### Observation

Field notes and digital images were taken at each site in accordance with qualitative observational protocol. The investigator participated as an observer at each site before scheduled interviews. This unstructured, anonymous approach allowed time for recording initial impressions of the site and its surrounding context.

Observed and recorded site characteristics included:

#### *Physical features:*

- Structural restoration components
- Plantings and protective materials such as ropes and signs
- Gardener support infrastructure such as tool storage and composting facilities
- Irrigation techniques
- On-site revenue sources such as cafés, food carts, and shops
- Artistic installations
- Presence of historic interpretation
- Visitor amenities such as seating, bathrooms, trash receptacles, stairways, paths, signage, and water fountains

*Overall features:*

- General atmosphere
- Interactions between staff and visitors
- Pedestrian flow
- Neighborhood context

Using standard qualitative analysis protocols, the digitally recorded interviews were transcribed and grouped with typed observational field notes. After the final interviews in December of 2011, all data were then organized and examined for emerging themes. A list of thematic topics was compiled after a quick examination of the documents and after obtaining a general sense of the information. The data was manually coded, separated according to theme, and reorganized into relevant categories. A list of these units and coding abbreviations can be found in Appendix A. Topics were then analyzed for interconnecting themes. The investigator was able to visualize broader, comprehensive research findings after manually mapping out each theme and condensing the list into smaller components (Creswell, 2009).

## **Chapter 4**

### **RESULTS AND DISCUSSION**

The inspiration for the study rose from a growing interest surrounding the redevelopment of the Reading Viaduct in Philadelphia. The precarious nature of the site, and complications surrounding its future influenced this research to identify the best practices in preservation and promotion of similar railway-to-parks projects. This thesis specifically investigated how other sites succeeded, and what factors existed when park development was delayed. Each case study contributed to a broader narrative of derelict railway conversion.

The chapter is divided into three distinct sections analyzing existing sites, works in progress, and potential railway conversion projects. Areas under consideration included historical background, neighborhood context, physical features, organizational structure, and elements of management and leadership. Details relating to initial support groups' ability to build support and resources for the project were of particular interest. Table 1 below lists the basic figures collected from each site.

**Table 1      Comparison chart**

	THE BRIDGE OF FLOWERS	NATUR PARK SÜDGELÄNDE	THE PROMENADE PLANTÉE	THE HIGH LINE	THE READING VIADUCT
<b>Years from conception to opening</b>	1 year: 1928 - 1929	20 years: 1980 - 2000	15 years: 1979 - 1994	10 years: 1999 to 2009	2003 -
<b>Original park advocacy group</b>	Shelburne Falls Women's Club	Close-knit "Citizens Group" with ecologist, lawyers, neighbors, planners, etc.	City of Paris, L'Atelier Parisien d'Urbanisme	Friends of the High Line	Reading Viaduct Project, recently Center City District and VIADUCTgreene also
<b>Key development in park genesis</b>	Engineers proved that restoring the water main, and the Bridge, was less expensive than building a separate water line	Ecological survey proved it was one of the most diverse areas in Berlin	Destroying the viaduc is deemed unrealistic, instead is selected as major project to valorize eastern Paris.	Economic impact analysis proved to Mayor Bloomberg that the park would be a great investment	Feasibility study proved that demolition would be costlier than redevelopment
<b>Cost: construction</b>	In 1929 ≈ \$2,250. Restoration in 1983 ≈ \$500,000	\$2.3 million	\$25 million	Section 1 & 2: \$152 million, Section 3: estimated up to \$75 million	Estimated \$36.9 million
<b>Cost: annual operating</b>	\$39,700	\$316,000	n/a	\$3 million	Not yet built
<b>Elevated park?</b>	Yes	No	Yes	Yes	Yes
<b># of visitors per year</b>	35,000 +	50,000 +	Do not count, but always crowded	3.7 million	Not yet built
<b>Annual # of visitors per acre</b>	35,000 +	1,250	n/a	552,240	Not yet built
<b># of staff people</b>	2 pt. time	1 full 2 pt. time	9 full time	≈ 60 total	Not yet built
<b>Admission fee</b>	Free	€ 1,00 per person, free for youths ≤ 14	Free	Free	Private property
<b>Industrial history interpretation, Rating from 1-10</b>	6	10	6	8	Not yet built

	THE BRIDGE OF FLOWERS	NATUR PARK SÜDGELENDE	THE PROMENADE PLANTÉE	THE HIGH LINE	THE READING VIADUCT
<b>Ownership</b>	Shelburne Falls Fire District	Berlin Senate	Municipality of Paris	City of New York	The Reading Corporation
<b>Management structure</b>	Volunteers	City and volunteers	City	City and paid staff of Friends group	Center City Business Improvement District
<b>Size</b>	390' long pedestrian bridge, 1/10th of an acre	40-acre rail yard	1 mile elevated; 2.81 miles and 16 acres total	1.52 miles, 6.7 acres	6.95 acres total
<b>Annual cost per acre</b>	\$39,700	\$7,900.00	n/a	\$447,760.00	Not yet built
<b>Context</b>	Small village in Western Mass.	Quiet neighborhood close to downtown Berlin	Paris' 12th district, to the east	Lower west side, Manhattan	Callowhill Neighborhood, Chinatown, Philadelphia
<b>Accessible to public transit?</b>	No	Yes, very	Yes, very	Yes	Yes
<b>Educational programs?</b>	Yes	Yes, few	Yes, few	Yes, many	Occasional guided tours, informational meetings, lectures
<b>Industrial history interpretation, Rating from 1-10</b>	6	10	6	8	Not yet built
<b>Funding sources</b>	The Bridge of Flowers Committee of the Women's Club: operational \$\$, and Bridge of Flowers Preservation, Inc.: capitol \$\$	City parks: operational \$\$, Allianz Environmental Foundation: initial capitol \$\$	City of Paris & SEMAEST, eastern Paris economic development association	City of New York	Preliminary studies and design work funded by William Penn Foundation and Poor Richard's Charitable Trust
<b>Scale of design, rating from 1-10, from wild to ornate</b>	6	2	8	7	Not yet built
<b>Level of maintenance: High/Medium/Low</b>	High	Low	High	High	Not yet built

## Section 1: Existing Sites

### The Bridge of Flowers

**Table 2      Bridge of Flowers profile**

PROJECT NAME		THE BRIDGE OF FLOWERS
LOCATION		Shelburne Falls, Massachusetts
CLIENT/DEVELOPER		Shelburne Falls Women's Club
DATE COMPLETED		1929
CONSTRUCTION COST		In 1929 ≈ \$2,250. Restoration in 1983 ≈ \$500,000
SIZE		390' pedestrian bridge
DESIGNERS		Planned and executed by the Women's Club
OWNERSHIP		Shelburne Falls Fire District
MANAGEMENT		Bridge of Flowers Committee of the Women's Club, 501 c 3

### Character-Defining Features

The Bridge of Flowers is beloved by area residents and visitors. The concrete, 390-foot, five-arch structure rises over the Deerfield River, forming a pedestrian connection between Shelburne and Buckland (**Figure 1**). The gardens on the Bridge are the highly regarded, defining feature of the area and a focal point for community celebrations. Basic figures for the Bridge are listed in Table 2.

People return to the Bridge each year for its evolving, colorful display. Over 500 varieties of annuals and perennials are planted and tended to ensure continual

blooming throughout the seasons (Rails to Trails Conservancy, 2010). The soil extends for 2.5 feet, and deeper in some areas to support small shrubs and trees. Caretakers neatly rake the narrow, gravel path that runs the length of the Bridge.



**Figure 1     The Bridge of Flowers in April 2011**

### History

The Bridge of Flowers restoration project is a fine example of a community banding together to save a landmark. The garden was once a trolley bridge,



constructed for \$20,000 in 1908 by the Shelburne Falls & Colrain Street Railway to help transport freight, people, and goods from Shelburne Falls to nearby mills. The trolley bridge connected the close-knit communities of Shelburne and Buckland, and was described as the “social and commercial connection” of the area. However, as automobile usage began to outpace rail in the twenties and trucking emerged as the preferred mode of transport, the railway company declared bankruptcy in 1927 (Bridge of Flowers, 2010).

The Bridge lay vacant, collecting weeds for two years until the late Antoinette Burnam had the vision of transforming it from an “eyesore” into a planted walkway. Nevertheless, Shelburne Falls did not need footbridge, and the notion to preserve the structure as a place to stroll needed more weight to be convincing. The Bridge was, however, too expensive to demolish. The community’s main water line is encapsulated within it, and rebuilding another line would prove to be far more expensive than preserving the original. The Shelburne Falls Fire District eventually agreed to purchase the bridge for \$1,250, and the local Women’s Club began raising funds to plant the pathway over the river (Bridge of Flowers, 2010).

The Women’s Club raised \$1,000 in 1929 for the project, and that spring, volunteers spread loads of loam and fertilizer along the Bridge. The Club also purchased 400 feet of fencing, installed by the “men of the town who donated their service” (Bridge of Flowers, 2010). The Bridge of Flowers is the United States’ original railway garden preservation project. Over 36,000 visitors toured the site in 2010, and it is consistently ranked as a top tourist destination in Western Massachusetts (Taylor, 2011).

## Context

The communities of Shelburne and Buckland are located in the foothills of the Berkshires, along the Mohawk Trail, a 63-mile scenic highway. “Shelburne Falls” is the business district shared by the two small towns and emerged as a manufacturing community centered on the Deerfield River. The area experienced revitalization in the past several decades, and has become a recognized arts community. Almost everything in the village is within walking distance, with several charming shops and restaurants catering to tourists and locals on both sides of the river (Shelburne Falls, 2012).

## Organization, Management, and Leadership

The Shelburne Falls Fire District retains ownership of the structure, and two related groups manage Bridge operations and maintenance. The original Bridge of Flowers Committee initiated by the Women’s Club continues to control Bridge operations. They also recently launched the Friends of the Bridge of Flowers support group. According to the official website, “The Bridge of Flowers Committee of the Women's Club is a 501c3 nonprofit and its gardeners and volunteer members work hard to keep the Bridge's many flowers, plants, trees, shrubs and vines growing beautifully throughout the season” (Bridge of Flowers, 2010). New plants, general maintenance, and staff are all funded by this entity. Several generous donations allow the Committee to maintain the garden using interest from this fund (Taylor, 2011).

The second group, the Bridge of Flowers Preservation, Inc., was formed in the 1980s in response to the failing piers and structural issues developing on the Bridge. This branch was created “for the purpose of raising funds and working with the Towns of Buckland and Shelburne and the Shelburne Falls Fire District, owner of the Bridge” (Bridge of Flowers, 2010). The leaders organized members of all the major businesses in the community and hired engineers to compare preservation options. “The project became a cooperative effort among the Towns of Buckland and Shelburne, the Shelburne Falls Fire District, and the Bridge of Flowers Preservation, Inc. The campaign to repair the structure was supported by a Massachusetts State Small Cities Community Development Grant. With such broad based support, the enormous undertaking of preserving the Bridge no longer seemed impossible” (Bridge of Flowers, 1983). Resources raised by this group are strictly for Bridge maintenance purposes such as work on the pathway, gravel, and restoration projects. The budget relating to plantings and gardening comes from the Women’s Club committee. This distinction grants Preservation, Inc. greater flexibility in applying for preservation grants and managing a capitol restoration project (Taylor, 2011).

### Maintenance

The Bridge of Flowers closes for the winter, and opens in early April each year. Visitors enjoy three seasons of blooms, including spring bulbs (Figure 2), midsummer annuals, and a fall display. It is regarded as a show garden, and careful attention is paid to detail. Nearly all plants are labeled. Two part-time gardeners are paid to work fifteen hours a week to maintain the beds, and a dozen volunteers help

out twice weekly. The volunteer group is a devoted, allegiant group of women. Individuals travel from nearby and as far as Connecticut to help out on the Bridge. In the busy season, gardeners tend to work in the early morning before tourists arrive and crowd the narrow pathway. Master gardeners volunteer as docents simulating gardening activity in the crowds as they answer visitor questions.

Watering is an issue. Exposed conditions cause plantings to dry out quickly. The irrigation system can only water half of the Bridge at one time, and has posed challenges over the years. After a series of broken pipes and system failures, the gardeners have fixed the issues and developed a successful routine. Water is pumped from the river and hoses are located at several points along the Bridge. In the hot summer months the garden is watered daily.



**Figure 2     Bridge of Flowers pathway with spring bulbs emerging**

#### Events and Other Revenue Generating Components

The biggest event held each year is the Bridge of Flowers Annual Plant Sale. In keeping with the spirit of the organization, several community groups lend a hand in preparing for the event. Gardeners, volunteers, and horticultural enthusiasts help raise plants for the sale. Local high school students prepare dahlias each year, and local nurseries grow specific quantities of various plants for the day. After many

successful years, the plant sale is a beloved, well-coordinated event providing support for Bridge of Flowers operational expenses.

Another source of revenue for the operating budget comes from the Bridge of Flowers Friends group. Giving levels are divided into three categories:

- \$25: Green Thumb Club
- \$100: Silver Trowel
- \$250 and up: Gardener's Circle



**Figure 3     Bridge entrance, with donation box and information kiosk**

Friends of the Bridge receive a window decal and are listed in the annual letter and on the Bridge of Flowers website. Businesses giving \$250 or more also receive a link on the Area Links page on the website. Significant donors of the 1984 restoration project are acknowledged on a commemorative plaque at the entrance to the Bridge.

A hand crafted donation box at the entrance to the Bridge is another significant source of revenue (Figure 3). The money is collected daily, which covers most of the garden's operational expenses.

### Strategies to Build Support and Resources

History repeated itself in 1982, when the Bridge of Flowers Preservation, Inc. proved that restoring the Bridge would preserve the community water main. A 1979 photographic study of the area by Hampshire College students identified deterioration of the Bridge of Flowers as “major concern.” That spring, a local resident asked the Women's Club to organize the Bridge of Flowers Preservation, Inc. to begin raising funds for a Bridge restoration project. The group collaborated with the Shelburne Falls Area Business Association and the Franklin County Planning Department to manage the project (Bridge of Flowers, 2010).

Preservation, Inc. hired a community planner to oversee the project, facilitate the 501c3 Preservation, Inc. designation, and organize an initial engineering survey of the Bridge. According to a commemorative booklet, “The critical planning step was the completion of the Preliminary Engineering Report by the engineering firm Tighe and Bond/SCI of Easthampton in December 1981” (Bridge of Flowers, 1983). The

study estimated that \$580,000 was needed for restoration costs. See Appendix B for images relating to the restoration study. Miraculously, a semi-retired professional fundraiser offered to assist the group, and a Campaign Committee was then formed. The Committee members met weekly for a year. They were encouraged by a preliminary feasibility study, “which revealed that the chances of a successful campaign were favorable, despite economic conditions” (Bridge of Flowers, 1983).

Preservation, Inc. cleverly illustrated to the Shelburne Falls Fire District that rebuilding the water line in a trench, or with a new bridge, would be far more expensive than restoring the Bridge of Flowers. The Fire District, as the owner, subsequently agreed to appropriate \$100,000 towards the restoration (Taylor, 2011). “Strong local commitment for the project, such as this, was a key factor in the grant award of a Massachusetts Small Cities Community Development Block Grant of \$290,000 in August 1982” (Bridge of Flowers, 1983). The New England Power Company also agreed to lower the river level as much as possible to coordinate with pier construction. This action alone saved \$100,000 in construction costs. Additional funding came from special events, and both the public and private sector. “With such strong support from the private and public sectors the community was greatly encouraged” (Bridge of Flowers, 1983). Restoration work began the following year. Community members unearthed plantings on the Bridge, and cared for them at their homes until construction was complete (Bridge of Flowers, 2010).

### Challenges

- Crowd control in high season, very narrow pathway



- Bridge needs to be closed in the winter due to wintry conditions
- Constant watering is necessary in the summer, due to harsh conditions on the Bridge

### Strengths

Community support is the fundamental strength at the Bridge of Flowers. According to long-time Bridge of Flowers Committee member Marion Taylor, “It has to be a whole town thing.” This is a key to their success.

### Community Support Elements:

- Enthusiastic and cooperative advocates with both experience and expertise
- Devoted residents, business owners, politicians, volunteers
- Generous donors, supporting via donation boxes at either end of the Bridge, memorials, bequests and through the “Friends of the Bridge”
- Engaged students of all ages, involved in hands-on gardening projects
- Local artists involved in crafting the Bridge’s signage, sign-in booth, and garden gate

### Natur Park Südgelände

**Table 3**      **Natur Park Südgelände profile**

PROJECT NAME		NATUR PARK SÜDGELÄNDE
LOCATION		Former west Berlin, Germany
CLIENT/DEVELOPER		Berlin Senate
DATE COMPLETED		2000
CONSTRUCTION COST		\$2.3 million
SIZE		40 acres
ANNUAL COST PER ACRE		\$7,900
DESIGNERS		ÖkoCon, ODIIOUS artist group
OWNERSHIP		Berlin Senate
MANAGEMENT		Grün Berlin Park und Garten, Berlin Parks department

### Character-Defining Features

Südgelände is a prime example of a park that balances recreational and conservation objectives. Basic figures for the site are listed in Table 3. Most of the area is identified as a nature reserve, with species protection taking priority. The park's wild grasslands and woodlands are beloved by city dwellers seeking a quiet place to relax and explore. According Dr. Andreas Langer, "The main thing was to

make the park accessible to the public” (Langer, 2011). Visitors can admire the rail industry relics staged throughout the park from designated filled tracks and elevated pathways. Aside from designated areas in the landscape protection area, guests are instructed to remain on the walkway to prevent soil compaction. This represents a challenge. As Dr. Gottfried Wiedenmann reasoned, the words “Nature” and “Park” are antithetical to one another. Parks are for people (Wiedenmann, 2011).

The artist collective “ODIOUS” designed the sculptural raised pathways to allow light, air, and water to reach the soil below it (Figure 4). The longest route through the park extends for 2.7 km throughout the nature preservation area. There are two additional circular pathways that are accessible to people with disabilities.



**Figure 4**     **Elevated pathway designed by ODIOUS artist collective**

*Prominent site features:*

- Fully restored locomotive hall, utilized as event and performance space
- Rail industry relics: train engine, engine turntable, water tower, rails, and tunnels (Figure 5) serving as interpretive sculptural elements
- Pathway network and a small lawn area with benches and swings

- Designated areas for graffiti artists to paint and display their work
- Small privately managed café



**Figure 5** Reimagining the industrial materials on site served as a cost cutting measure as well as a design intention.

The park is elegantly described in an article by Christophe Girot describing Berlin landscapes after the Wall.

Shoneberg Südgelände gradually became an extraordinary natural laboratory only visited by experts. Although never conceived as a space open to the

public, it developed over time into one of the most renowned nature spots of Berlin. The contorted rail tracks twisting and disappearing under the sheer strength of spontaneous plants and trees offered a seductive romantic mélange full of past and present connotation (Giro, 2004).

The innovative design features at the Natur Park are as impressive as its conservation record. A diversity of species is now found at Südgelände. Those monitored include 95 bee species, 30 species of breeding birds, 57 spider species, 95 wild bee species, 15 grasshopper species, over 350 plant species, and 49 species of mushrooms (NYC Global Partners, 2010).

The core of the park is designated as a Nature Protection Area, with the rest preserved as a landscape protection area under Berlin Conservation Law. These two conservation easements establish varying degrees of control over the landscape.

The idea was to have this nature protection site where you shouldn't leave the path. Because, in the beginning of the discussion some were thinking we would fence the area and only have guided tours. But you cannot, in the midst of a city, fence this wonderful area and say "Stop, don't go in." So, we had to think about an idea to combine the ideas and create nature protection area that was open to the public. So, the idea of the walkway was born. Outside of the nature protection area we said it would be open, and everybody could use it (Langer, 2011).

These two designations represent another compromise on the part of the Citizens Group. The diversity of expertise and spirit of collaboration in the group encouraged members to find middle ground amidst difficult decisions.

## History

Natur Park Südgelände was once a busy, 40-acre shift yard servicing freight trains from all over Europe. The rail yard was constructed between 1880 and 1890 in former Western Berlin. However, the area was under the official jurisdiction of the East German railway, Deutsche Reichsbahn. The site was therefore largely abandoned after the Berlin Wall was built. Beginning in 1952, the “out of mind area” naturally progressed into the dry grasslands and birch woodlands that characterize it today (Langer, 2011). Dr. Andreas Langer, an urban ecologist and early proponent for the establishment of the Natur Park, has traced the area’s evolution from largely abandoned rail yard to vibrant public space. He writes,

...about 50 years of natural succession have converted the Südgelände, a derelict shunting station in the heart of Berlin, into a highly diversified piece of natural urban landscape. Originally a hub of activity, then for four decades an almost untouched new wilderness, today the site is one of the first official conservation areas in Germany in which urban-industrial nature is protected and made accessible to the public (Keenan, 2008).

Dr. Langer assisted the original “Citizens Group” that saved the park from development pressures in the 1980s. This advocacy group’s composition and strategic approach is detailed in a later section.





**Figure 6** Original rails, preserved as a woodland pathway

Südgelände opened to the public in 2000 after fifteen years of planning and debate (**Figure 6**). The Natur Park has been preserved as the Schöneberger Südgelände landscape and nature conservation area. Lying on the edge of the city, the woodlands are an enchanting expression of industrial history, nature, and design (Kowarik, 2005).



## Context

Südgelände is located just south of downtown, in the district of Tempelhof-Schöneberg. It is easily accessible by the S-bahn train. A ten to fifteen-minute train ride from central Berlin directly to the to the “Priesterweg” station leaves visitors virtually at the doorstep of the Natur Park.

The park was designed as quiet space for visitors to relax and explore. Guests seeking more active recreation options, such as bicycling, are free to use the greenway on the other side of the S-Bahn line outside of the conservation area. This external pedestrian path is heavily used and relieves pressure from the Natur Park.

A peaceful residential district surrounds Südgelände, with two cafés and the greenbelt extending along the train line. The neighborhood is a stark contrast to the density, color, and noise found further north in the city center. There is a small residential cooperative gardening community across the road, and several other clusters of homes nearby. Citizens Group member Sabine Letzner described how residents and visitors from all over recognize the park for its unconventional beauty (Letzner, 2011).

## Organization, Management, and Leadership

Südgelände received initial funding for redevelopment by the Allianz Environmental Foundation. The Natur Park is owned and administered by the official

city parks department, “Grün Berlin Park und Garten GmbH,”<sup>1</sup> under the Administration of Nature Protection. The park operates on a shoestring budget, relying on volunteers to lead weekend tours and handle small operational tasks. This system is detailed in the next section.

The original members of the Citizens Group are no longer involved in park operations but now meet monthly for informal, social gatherings. Ms. Rita Suhrhoff is the manager and sole official employee at Südgelände. She is paid by Grün Berlin, and according to Dr. Gottfried Wiedenmann, she is incredibly busy. “Rita does everything... it’s very hard work” (Wiedenmann, 2011). Two other staff people, including a facilities manager, help maintain the park along with several others owned by the city.

### Maintenance

The park receives additional support through a program that Südgelände historian Dr. Gottfried Wiedenmann likened to Social Security in the U.S. “Cost-Free” workers receive state support in exchange for volunteer service. This group manages the trash pickup, graffiti removal from undesignated areas, and maintenance of several small lawns in the park. The system is designed so that workers perform duties that cannot be completed by other companies. These individuals have also lovingly restored several of the industrial features in the park (Wiedenmann, 2011).

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<sup>1</sup> “Grün Berlin Park und Garten GmbH” translates as Green Berlin Parks and Gardens Ltd.

The park requires minimal maintenance. Aside from annual grassland mowing, little else occurs. Plant and insect species of open habitats are protected in the delicate grassland sections. “They are maintained through a single hay cut in September. The grass is cut back with brushcutters, raked into piles and left for several days to allow invertebrates to escape, before being removed from the site. Any invading trees and shrubs are cut to the ground at the same time” (Space, 2006).



**Figure 7     A managed grassland area**

Sheep are also brought in for two weeks each June to maintain clearings (**Figure 7**). The herd is moved after consuming invading woody plants with the grasses in the meadows (Langer, 2011).

In contrast, the urban woodlands, dominated primarily by *Betula pendula*, *Populus tremula*, and *Robinia pseudoacacia*, are allowed to develop undisturbed (Kowarik, 2005). According to Dr. Langer, these two strategies reflect an initial compromise by planners to arrest habitat development and therefore promote species diversity in the clearings, while letting natural succession progress in the woodland areas. “It was a big discussion in the beginning, should we let succession go on...or not?” (Langer, 2011). The ecologists eventually agreed to customize separate approaches for each habitat.

#### Events and Other Revenue Generating Components

- The nature organization, “Friends of the Earth” leads guided walks through the park every Sunday during the spring and summer
- Concerts, weddings, and performances are held in the former locomotive hall
- The specially designed “Jardino Secreto” is popular for event rentals
- The Citizens Group holds an annual event translated as “Long Night of the Nature,” which includes many group tours and a large picnic beneath the old water tower (Letzner, 2011)
- Südgelände was the first public park in Berlin to charge an entry fee, 1€, in order to limit access (Giro, 2004). Children 14 and under are free.
- Visitors can purchase a yearly membership to Südgelände and several participating Berlin parks of for around 10€

- The Südgelände café owner rents the facility and transfers 10% of his earnings to Grün Berlin (Wiedenmann, 2011)



**Figure 8     Designated space for graffiti art**

### Strategies to Build Support and Resources

Nearly three decades after the rail yard was abandoned, authorities in the reunited German capital began to plan to clear the area to prepare for a new shunting



station<sup>2</sup>. This report led to the establishment of the Bürgerinitiative Schöneberger Südgelände, Citizens Group for the creation of “Nature- Park” (NYC Global Partners, 2010). The Citizens Group was composed of concerned citizens possessing a diversity of training and interests.

Sabine Letzner joined the group a month after a landscape planner founded it in 1980. Sabine describes the members as a “group of experts” drawing on skill sets ranging from traffic planning to legal advice. The group of 10 to 15 supporters met every other week to strategize. Sabine also led weekly guerilla tours for the public through the wilds in the rail yard. Eventually, she secured a state-funded position for herself to perform public relations for the Citizens Group. All of the community work that she previously had done voluntarily was to be covered for two years. This funding provided for supplies, and allowed Sabine to lead monthly informative meetings and collaborate with similar groups in Berlin. Decades later, Sabine is still passionate about the cause (Letzner, 2011).

One tactic that the Group employed when advocating for the Natur Park involved appealing to people’s self interests. When informing residents about the state development plans, they simply emphasized the fact that shunting yards are loud places. The trains would be constantly “banging into one another” and disturbing the neighborhood (Letzner, 2011). The traffic planner on the Citizens Group also led a study, proving to the Berlin Senate that the station was dated even before it was built. The research showed that trains are no longer built on site within the city, and are instead assembled outside of the station before being moved elsewhere.

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<sup>2</sup> A shunting station or marshalling yard is a railroad emplacement where trains or separate wagons are split and reconnected (Embassy Freight, 2012).

Conducting a vegetative survey of the site was the most effective action by the Citizens Group. Members pressured the city government to perform the survey in 1992. The Berlin Senate eventually consented, assuming the area was ecologically insignificant. Dr. Langer was then contracted to do the vegetative analysis along with Dr. Ingo Kowarik, a Professor of Urban Ecology. Both collaborated with biologists to map the animal and insect presence on site. In Dr. Langer's words, "As a result of the survey Südgelände was shown to be one of the most valuable ecological areas of the city because of the immense diversity of flora and fauna" (Keenan, 2008). Fortunately, the area ecology had been analyzed previously in 1981 as the city was planning the new train site. The Group therefore possessed two surveys performed a decade apart, illustrating dramatic biological development (Langer, 2011).

According to Dr. Wiedenmann, "The citizens group was fundamental. They did very, very, very good work" (Wiedenmann, 2011). Lawyers discovered inaccuracies in the Senate redevelopment plan, illustrating how the city had acted unlawfully. Other members carried out a study proving that building a new shift yard made little sense economically. Individuals also ensured that Südgelände would be involved in a Federal Gardening Exposition along with other city parks, and a proposed greenbelt. As Ms. Letzner explained, the Citizens Group was far more invested in Südgelände becoming a park than the Berlin Senate was of the area being developed into another station.

In 1995, the Deutsche Bahn AG<sup>3</sup> transferred ownership of 40 acres to the Berlin Senate in compensation for new developments at the Potsdamer Platz. Dr. Andreas Langer describes this final step.

The realization of the nature-park was again dependent on history: the reunification of Germany and the rapid development of the city of Berlin which followed required ecological compensation. In this case the compensation was the transfer of the property rights from the German railway company to the state of Berlin (Keenan, 2008).

Natur Park Südgelände was finally opened to the public in May 2000, half a century after the rail yard was abandoned, and two decades after the Bürgerinitiative Schöneberger Südgelände Citizens Group was formed.

### Challenges

- The strict pathway rules are potentially alienating. However, this may be a positive, as the majority of soil in former rail yard has been untouched and is conceivably toxic.
- The unorthodox entrance fee could also deter visitors

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<sup>3</sup> “German Railway,” formed in 1994 as the next generation of the former state railways of Germany, the Deutsche Bundesbahn of West Germany, and the Deutsche Reichsbahn of East Germany



### Strengths

- Enthusiastic and cooperative advocates with both experience and expertise
- Low budget park with minimal maintenance
- Excellent interpretation of industrial history
- Well connected to public transit and recreational greenway
- Trendy spaces for event rentals, performances, and concerts
- Tranquil wilderness with close proximity to downtown Berlin
- Diverse natural areas blended with colorful industrial elements (**Figure 9**)



**Figure 9**      **A stand of *Betula pendula* near the park entrance**

## The Promenade Plantée

**Table 4      Promenade Plantée profile**

PROJECT NAME		THE PROMENADE PLANTÉE
LOCATION		Paris, France, XII arrondissement
CLIENT/DEVELOPER		City of Paris
DATE COMPLETED		First section in 1994, Viaduc des Arts in 2000
CONSTRUCTION COST		\$25 million
SIZE		1 mile elevated; 2.81 miles and 16 acres total
DESIGNERS		<b>Promenade</b> landscape architect: Jacques Vergel, architect: Philippe Mathieux.
		<b>Viaduc des Arts</b> architects: Patrick Berger and Jamine Galiano
OWNERSHIP		Municipality of Paris
MANAGEMENT		<b>Promenade:</b> City of Paris parks department <b>Viaduc des Arts:</b> SEMAEST, eastern Paris economic development association

### Character-Defining Features

The Promenade Plantée, detailed in Table 4, soars nine meters above ground level, sheltering visitors from the noise and traffic below. In true French style, the park is lush and colorful with fine lines and strong bones. Landscape architect Jacques Vergely and architect Philippe Mathieux designed the parkway with the aim to

envelop the public within a tunnel of greenery. According to Dominique Viard, Director of Horticulture at the Promenade Plantée, the garden consists of a series of garden vignettes. “The gardens differ from one to another, there is an originality. It’s very rich...the diversity is the source of its charm” (Viard, 2011). Each area tells a story and leads visitors smoothly into the next experience (**Figure 10**).



**Figure 10**      A trellised archway guides visitors into an open area

The narrow pathway begins at the Opéra Bastille. It is lined with beds overflowing with planting such as *Lavandula spp.*, *Rosa spp.*, *Acanthus spp.*, and *Hedera spp.*<sup>4</sup>. Tall hedges are interspersed with *Wisteria spp.*, *Acer spp.*, and *Prunus spp.*<sup>5</sup>. Unlike at Südgelände, the plantings are ornamental and prized for their design features over their ecological function. The garden transforms to a swaying, bamboo forest, as visitors are thrust through rose-covered trellises into an open area with magnificent views into the city. This wider section includes wooden decking with heavy, industrial seams and iron balconies. Rare views of the street life surrounding the park are to be savored in this segment of the Promenade. Elegant belle époque apartments line the Avenue Daumesnil and the sounds of scooters echo from below. Visitors continue around large planters filled with lavender and vines, through a pathway slicing an apartment building in two. A long fountain stretches out near the end of the parkway, again lined with lavender and framed with a bower of roses. The Promenade descends to ground level, as an arching pedestrian bridge leads into the Jardin de Reuilly. This area includes a lovely sloping lawn used for concerts, performances, and picnics.

Below the Promenade Plantée, Architects Patrick Berger and Jamine Galiano have converted the viaduct's 60 brick arcades to create the bustling Viaduc des Arts (Encyclopædia Britannica, 2012). The archways have been fully restored into a series of galleries, ateliers, and cafés in accordance with the craft heritage of the 12<sup>th</sup> district. The Viaduc des Arts and the Promenade Plantée above are owned by the City of Paris.

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<sup>4</sup> Lavender, rose, acanthus, and ivy, respectively

<sup>5</sup> Wisteria, maple, and cherry, respectively



The vaulted rooms are encased in glass, allowing passersby to view into the small-scale production of theatrical costumes, musical instruments, avant-garde jewelry, and the like. The Association du Viaduc des Arts also includes two cafés, with traditional outdoor seating and informal musical performances (**Figure 11**).



**Figure 11** A café at the Viaduc des Arts

Prominent site features:

- Well manicured, full garden beds, profusion of flowers and foliage

- Pedestrian pathway, elevated for 1 mile from the Opéra Bastille to the Jardin de Reuilly, at grade and open to cyclists for 2 additional miles to the Bois de Vincennes
- Intimate, sheltered spaces combined with open, arresting views of the city
- 64 restored red brick vaulted rooms, housing the Viaduct des Arts
- Viaduc des Arts: glass-fronted archways with galleries, cafés, and wood, textile, and metal ateliers.
- Several stairways and an elevator lead to the Promenade
- Small storage closets for gardening staff
- Fountains and benches for visitors on the Promenade
- 2 parking lots

## History

The Promenade Plantée is touted as the world's first elevated parkway, and the first green space built on a viaduct. The park is built on the bed of the former Vincennes railway line in the XII arrondissement <sup>6</sup> in eastern Paris (Mezzina, 2003). This passenger railway connected the Place de Bastille with the Varenne–Saint-Maur suburbs, southeast of the city. The rail line was constructed in 1859 in what was described as a thriving industrial area. A steam engine, “machine à vapeur,” carried commuters along the viaduct until the line was abandoned in 1969 (Viard, 2011). At this point, a section of the Vincennes railway was integrated with the RER, the regional commuter rail system (Viard, 2011).

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<sup>6</sup> The city of Paris is divided into 20 *arrondissements municipaux*, municipal districts

In 1979, the city of Paris and SEAMEST, the society for the development of eastern Paris, began to brainstorm redevelopment options for the industrial properties in the district. By 1983 the plans were complete, and a year later the old Bastille station was demolished to make way for the Opéra Bastille. In 1986, the old commercial rail depot at Reuilly (Figure 12) was developed into a cluster of parks at what is now the terminus of the elevated section of the Promenade Plantée (Benfield, 2011). Two years later, construction began on the first phase of the Promenade Plantée. This section opened to the public in 1994. The viaduct archways were then creatively restored into the Association du Viaduct des Arts. These vaulted rooms were opened by section, and finally completed in 2000 (Le Viaduc des Arts, 2012).



**Figure 12** Pedestrian bridge at the terminus of the elevated section of the Promenade into the Jardin du Reuilly, the site of a former rail depot

### Context

Hervé Matejewski, president of the Viaduc des Arts, describes the XII arrondissement as large, diverse, and constantly evolving. He explains, “It was dangerous here. People stole cars... it wasn’t great. Nevertheless, there were still some beautiful buildings in the 12<sup>th</sup> district. It’s a big neighborhood... it includes lots of poor people, and some very wealthy residents” (Matejewski, 2011). The



neighborhood is located in the eastern section of Paris. It was historically home to many small craft industries, before decline set in the early 1960s. After several decades of decay, the area began to regenerate in the 1990s. Redevelopment was initially propelled by the construction of the Opéra Bastille. As the neighborhood was beginning to gentrify before construction of the Promenade Plantée, the city had the foresight to purchase the defunct parcels surrounding the viaduct from the SNCF railway company as part of the redevelopment plan for the capital's east side (Le Viaduc des Arts, 2012). An example of a formerly industrial property near the viaduct is the Jardin de Reuilly, depicted in **Figure 12**. The small park replaced the commercial rail depot, and preserved the area as public space.

The district experienced incredible growth in the years immediately following the viaduct's restoration. Development included "...75,000 square feet of new commercial space, and more than 200,000 square feet of new office space... Beginning in 1990 and with unbelievable speed, 88 buildings containing 1,000 new residences were restored along the promenade" (González-Campaña, 2002). The area evolved from one of the poorest areas in Paris, to a new hip neighborhood. Rent increased by 10% after the construction of the viaduct. Furthermore, neighboring vacant lots were steadily filled in with housing and pocket parks (González-Campaña, 2002).

The Promenade Plantée is easily accessible by public transit. The metro stop "Porte Dorée" is located around the corner, and there are also several bus stops in the vicinity. The 12<sup>th</sup> district includes several other parks worth visiting, such as Park de Bercy, a former wine-processing site located along the Seine. See Appendix C for a basic map of the Promenade Plantée.

### Organization, Management, and Leadership

The Promenade Plantée is owned and managed by the City's Parks and Garden department<sup>7</sup>. Mr. Dominique Viard, Director of Horticulture, has a team of 6 gardeners to maintain the park, two of whom also maintain small parcels adjacent to the Promenade Plantée. There is also one janitorial employee in charge of trash removal and park cleanliness (Viard, 2011).

The Viaduc des Arts is managed entirely separately from the gardens of the Promenade Plantée. SEMAEST, the Société d'Economie Mixte d'Aménagement de l'Est de Paris,<sup>8</sup> was entrusted by the City of Paris with the management responsibility. "In 1990, the City of Paris entrusts SEMAEST to conduct all operations related to rehabilitating the Viaduc, a project centered around the theme of artistic professions and building several 'real estate islands' with living spaces, businesses and offices" (Le Viaduc des Arts, 2012). The association worked with the original team of architects to organize the restoration, spatial design, and commercialization of the Viaduc des Arts. In 2005, SEMAEST was granted an additional 18-year lease to administer the properties (Le Viaduc des Arts, 2012).

Mr. Hervé Matejewski presides over the Viaduc des Arts from his avant garde lamp studio on Avenue Daumesnil. As President, he meets with the leadership team every two to three months to direct Viaduc initiatives. This group of 5 individuals includes Mr. Matejewski, the Vice President, Secretary, and two additional artisans from the collective. Together, they organize Viaduc finances, marketing initiatives,

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<sup>7</sup> Mairie de Paris, Parc et Jardin

<sup>8</sup> Eastern Paris economic development association

and promotional events. Dues paid to the Association by Viaduc des Arts tenants fund marketing expenses and Viaduc programs throughout the year (Matejewski, 2011).

### Maintenance

Not surprisingly, Dominique Viard described the maintenance program on the Promenade Plantée as more intensive than it would be at ground level. Like the Bridge of Flowers, supplementary watering is often needed due to the increased exposure to sun and wind. Watering levels are increased when the weather is especially warm and dry. During construction, the soil was removed and the existing rail infrastructure was taken out and scrubbed to remove noxious materials. An irrigation and drainage system was installed as the structures were replaced on the viaduct (Viard, 2011).



**Figure 13 The Promenade includes intimate, calming spaces**

The gardeners have contended with leaks into the studios and shops below, in addition to other automatic irrigation system issues. These types of irrigation problems also occurred at the Bridge of Flowers and the High Line. Mr. Viard explained that these concerns were minor and fully expected, considering the fact that the Promenade Plantée is the prototype for aerial parkways (Viard, 2011).

The gardeners generally work with a meter of soil where trees are planted, but more in the deeper sections between each vault. They expressed some frustration with

path narrowness and a subsequent challenge for gardening cart passage (Viard, 2011). A narrow section of the path is shown in **Figure 13**. A wider area with open views is displayed in **Figure 14**.



**Figure 14** Sections also feature open, arresting vistas

## Events and Other Revenue Generating Components

The Promenade Plantée and the Viaduc des Arts do not hold events or programs together, as they operate as separate entities.

### Promenade Plantée

- The Paris parks department leads occasional guided tours of the Promenade Plantée
- Occasional concerts and performances are held in the Jardin de Reuilly

### Viaduc des Arts

- The merchants and artisans of the Viaduc des Arts rent the vaulted rooms from SEMAEST. These funds help to maintain the space.
- Each of the 60 tenants pays € 320 (or around \$420) per year to Association du Viaduc Des Arts to fund promotional events such as a holiday light show, street festivals, and artistic exhibitions.

## Strategies to Build Support and Resources

In 1979, as the Atelier Parisien d'Urbanisme<sup>9</sup> debated two proposals for the derelict railway viaduct. The group moved to install a promenade above the viaduct and renovating the vaults in lieu of destroying the entire structure to make way for

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<sup>9</sup> Parisian Urban Planning Studio

new development. The second option was deemed unrealistic upon closer examination of the structural integrity of the viaduct and surrounding buildings. The city subsequently included plans for the Promenade as a contingency for the construction of the new opera house at the Place de Bastille. Along with the Opéra Bastille, the planted walkway represented a major component of the city's plan to revitalize the eastern part of the city (Le Viaduc des Arts, 2012). This city planning process expedited the development of the Promenade Plantée and the project fit neatly within a broader network of parks and building developments progressing in the 12<sup>th</sup> district.

#### Other Pivotal Developments:

- The Viaduc des Arts was included in the plans for the Promenade Plantée. This project provided rental income for vault maintenance and injected life into the area surrounding Avenue Daumesnil.
- 1988 Viaduc des Arts conducted a design competition with four participating architectural firms. Architect Patrick Berger is chosen.
- The Promenade and the Viaduc started small and grew over time. The restored vaults and sections of the park above opened in phases from 1991 to 2000 (Le Viaduc des Arts, 2012).

#### Challenges

- Like Bridge of Flowers and High Line, there is a narrow pathway, with barely enough room for tourists and joggers. Not enough space for gardeners to work.
- The bureaucracy dividing the Promenade Plantée and the Viaduc des Arts is fairly involved. Paris' parks department manages the Promenade, and the Viaduc des Arts is leased and maintained by an Eastern Paris economic

development organization. Both parts of the structure are owned by the city. With this complexity, it is easy to see why that the Viaduc des Arts and the Promenade Plantée hold no joint programs. Still, this is a missed opportunity.

- The plantings are so robust on the Promenade that the foliage obscures remnants of its rail history along with potentially exciting views into the city. This enclosed atmosphere along the line was an initial design intention.
- A number of the Viaduc artisans choose not to work on weekends or after 5pm during the week, when most of the tourists are in the area. Furthermore, many of the tenants are naturally less inspired to participate in Viaduc promotional events and media-related activities, in favor of working on their craft. This inevitably poses leadership challenges for Mr. Matejewski (Matejewski, 2011).

### Strengths

- Enthusiastic and cooperative advocates with both experience and expertise
- The Viaduc des Arts has cultivated the professional development of artists and craftspeople from a multitude of disciplines.
- The Promenade Plantée connects to the larger “Petit Ceinture,” another abandoned railway line that rings the city (González-Campaña, 2002).
- The development catalyzed the revitalization of eastern Paris and the 12<sup>th</sup> district (Viard, 2011).
- The Promenade Plantée is the first of its kind. It is frequently referred to as the model for the High Line (Benfield, 2011).
- Both projects have achieved international acclaim as dynamic, innovative uses of formerly industrial property.



## Section 2: Work in Progress

### The High Line

**Table 5**      **High Line profile**

PROJECT NAME		THE HIGH LINE
LOCATION		Lower west side, Manhattan
CLIENT/DEVELOPER		Friends of the High Line
DATE COMPLETED		Section 1: 2009, Section 2: 2011, Section 3: estimated 2014
CONSTRUCTION COST		Section 1 & 2: \$152 million, Section 3: estimated \$75 million
SIZE		1.52 miles, 6.7 acres
ANNUAL COST PER ACRE		\$447,760.00
DESIGNERS		Planting designer: Piet Oudolf
		Landscape architects: James Corner Field Operations
		Architects: Diller, Scofidio, + Renfro
OWNERSHIP		City of New York
MANAGEMENT		Friends of the High Line

### Character-Defining Features

In contrast to the curving, brick archways of the Promenade Plantée, the High Line is, in a word, edgy. Its steel frame has been meticulously restored and repainted

soft black with a touch of green. The planted walkway extends from Gansevoort Street north to West 30<sup>th</sup> Street, before curving west around the Hudson Yards development. Along the way, visitors enjoy spectacular vistas of Manhattan and the Hudson River. The original rails have been preserved and delicately reconfigured into gravel-filled planting beds. Site details are listed in Table 5.

Like the Promenade Plantée, the High Line is organized into a series of landscape episodes. Visitors travel from woodlands, to grasslands, to prairie areas, with plenty of spaces to linger in between. And linger they do. The space teems with strutting New Yorkers, preening middle schoolers, and tourists from all around the world photographing each other along the line. Local residents flock to the park to unwind during lunch breaks, impress out of town friends, and simply to stroll. Adding to the excitement, the High Line also serves as a fashionable backdrop for photo shoots and impromptu performances (**Figure 15**).

The design team included Landscape architects from James Corner Field Operations, architects Diller, Scofidio, + Renfro, and Dutch master planting designer Piet Oudolf. The team created an innovative paving system of linear, concrete planks with tapered edges and open joints (Friends of the High Line, 2008). The smooth paving is woven into “New Wave” planting interpretations of the self-sown landscape that existed before the restoration. The planting design reflects Piet Oudolf’s characteristic style, blending sculptural perennials with ornamental grasses in informal, meadow-like arrangements.

To put it mildly, the High Line has received rave reviews. A *Travel + Leisure* reader survey in January 2012 of the world’s most popular landmarks placed the High Line at # 10, right after St. Peter’s Basilica in Rome (Spagnolo, 2012). In 2011, the

park welcomed over 3.7 million visitors. On weekends during the busy season, the former railway is packed shoulder to shoulder. Visitation peaked on Father's Day, 2011, with over 50,000 people swarming the High Line (Fisher, 2012).



**Figure 15 Musicians at the High Line**

*Prominent site features:*

- Sundeck with large lounging chairs and shallow, skimming water feature, with views of the Hudson River
- Seasonal beer garden beneath the High Line with various food cart vendors and temporary roller skating rink
- Small café with sandwiches, wine, and similar fare.
- Amphitheater looking onto the 10<sup>th</sup> avenue streetscape, carved into the deck of the High Line
- Small lawn with built in seating structure
- Ramped metal walkway, woodland “flyover” zone
- Sculpture of an empty “billboard” frame facing the street showcasing High Line visitors and accenting views into the city
- Restroom area
- Water fountains with sound feature
- Rotating public art installations
- 4 elevators, 9 staircases, 8 bike racks
- Plenty of seating

History

The original street level tracks were built along Manhattan’s west side in 1847. After a series of accidents and deaths along the busy corridor, the line was finally elevated in the 1930s. The construction was a component of a larger infrastructural project called the West Side Improvement. In 1934, the new High Line opened to rail

traffic from 34<sup>th</sup> Street to Spring Street. The line was designed to connect with the factories along the west side, oftentimes running directly through the buildings it serviced. “Milk, meat, produce, raw and manufactured goods come and go without causing street level traffic” (Friends of the High Line, 2012). With the rise of interstate trucking in the 1950s, the southern portion of the High Line was eventually demolished, with rail traffic ceasing entirely in 1980 (Friends of the High Line, 2012).

The structure lay vacant for several years, until a group of Chelsea property owners began to lobby for its demolition in the late 1980s. A *New York Times* article in 1999 declared that CSX Transportation had assumed ownership of the line, and was open to adaptive reuse proposals for the structure. When a community hearing was held soon after, the future High Line Co-Founders met for the first time. Joshua David and Robert Hammond proclaimed themselves the “Friends of the High Line,” and began organizing to save the structure from demolition (David and Hammond, 2011).

In the following decade, Joshua David and Robert Hammond led an impressive campaign. Their team-building approach advanced the proposal through the obstacles and lines of red tape that they encountered. According to Robert Hammond, “For every objection they raised, we found an expert who developed a solution” (David and Hammond, 2011). They assembled a powerful group of advocates, cultivated broad-based community support, and amassed a fortune to build the project. Their deliberate approach is outlined in “Strategist to Build Support and Resources,” which appears later in this section.

The High Line’s Section One from Gansevoort Street to 20<sup>th</sup> Street opened in 2009. Precisely two years later, the long awaited Section Two extended the park for ten additional city blocks (Friends of the High Line, 2012). Section Three, wrapping

around the Hudson Yards development to 34<sup>th</sup> Street, was still under planning and negotiations as this thesis was being drafted.



**Figure 16**      **The Whitney Museum being constructed at the southern end of the High Line**

## Context

The High Line runs along Manhattan's lower west side, from the Meatpacking District at Gansevoort Street, through the Chelsea neighborhood, and around the West Side Yard between Penn Station and the Hudson River at 34<sup>th</sup> Street. The park's nine entrances are fairly easy to access using public transit (Friends of the High Line, 2012). The neighborhood is dynamic, diverse, and growing quickly. **Figure 16** shows the new Whitney Museum being constructed at the High Line entrance at Gansevoort Street. The Chelsea area includes a *mélange* of chic bars, ethnic restaurants, and high-end boutiques. In the 1990s, the visual art world gradually relocated to Chelsea as real estate in SoHo became prohibitively expensive (David and Hammond, 2011).

The Friends of the High Line strategized with neighborhood groups and New York City Planning Commissioner Amanda Burden to defend West Chelsea from impending gentrification. In the official book detailing the High Line story, Robert Hammond explains, "Nobody wanted the galleries to be pushed out by housing, after they'd been pushed out of SoHo by high-end retail" (David and Hammond, 2011). The Award-winning 2005 West Chelsea Rezoning proposal addressed this issue while preserving open views into the city along the line. "In addition to preserving the High Line and creating a High Line air and light corridor through setback requirements, the West Chelsea Rezoning encouraged residential development and affordable housing while preserving mid-blocks for continued use by art galleries" (Epeneter, 2009). The West Chelsea Rezoning is regarded as a critical step in light of the intense neighborhood development occurring in recent years.

## Organization, Management, and Leadership

The West Chelsea Rezoning also advanced New York City's involvement with the High Line. Robert Hammond, now the park's Executive Director, explains this pivotal moment in the Co-Founders' memoir.

With the rezoning in place, the property owners would stop litigating. Without the litigation, the Surface Transportation Board would issue a Certificate of Interim Trail use, and CSX would donate the High Line to the City, allowing it to be railbanked.<sup>10</sup> The structure would become City property, managed by the Parks Department. Only then would the City be able to spend any funds on designing and building a public park on it—it could not spend money building something it wasn't going to own (David and Hammond, 2011).

This action laid the groundwork for the partnerships that continue to influence the High Line today. New York City retains ownership of the park property, as with other cities visited for this thesis research. The Park is managed by the Friends of the High Line, under the jurisdiction of the Parks Department. The Friends established an alternative licensing agreement with the Parks Department, as followed by the Central Parks Conservancy. The Friends are a “non-profit, private partner to the New York City Department of Parks & Recreation” (Friends of the High Line, 2012). In the arrangement, the Friends assume the primary management role for the park, while raising 90% of the operational funds each year (Fisher, 2012).

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<sup>10</sup> *Railbanking* is a voluntary agreement between a railroad company and a trail agency to use an out-of-service rail corridor as a trail until some railroad might need the corridor again for rail service. Because a railbanked corridor is not considered abandoned, it can be sold, leased or donated to a trail manager without reverting to adjacent landowners (Rails-to-Trails Conservancy, 2007).



From the beginning, High Line supporters clearly preferred supporting the organization holding, ultimately, management responsibility. At the same time, according to Robert Hammond, “The City didn’t have enough money to maintain the parks it already had. This new park on the High Line was not going to be an ordinary park with ordinary needs. It was thirty feet in the air. It ran through buildings. It was going to need a group like ours to fundraise for it” (David and Hammond, 2011). Visitation is ten times higher than the Friends initially predicted. The wear and tear on the structure, staffing needs, and security costs are all part of the \$3 million annual operating budget that the group covers each year (Foderaro, 2011). The majority of these funds are raised through individual donors attending the High Line spring benefits (Lindquist, 2011). These events are detailed below in the section “Events and Other Revenue Generating Components.”



**Figure 17   Piet Oudolf's plantings featuring winter interest**

Excluding seasonal workers, there are around 60 full-time employees at the High Line. This includes 7 gardeners, custodial staff, and those involved with park operations, communications, administration, food and revenue, educational programming, visitor services, planning, and fundraising (Friends of the High Line, 2012). It is difficult to compare High Line staffing to other parks of similar size. The institution operates more like a popular museum than a typical city park, which might

employ a skeleton grounds crew and management team. Millions enjoy the High Line throughout all four seasons (**Figure 17**; **Figure 18**). The visitation numbers, volume of public programs, and subsequent facilities and maintenance needs make it uniquely different from institutions of similar mission.



**Figure 18**      A water-skimming feature in the Sundeck Preserve

## Maintenance

When the High Line Co-Founders visited the Promenade Plantée, they felt that it seemed more like a typical French park, and less like the historic railway beneath it. According to Robert Hammond, “I thought it would be a missed opportunity if we saved the High Line and then put a standard park up there” (David and Hammond, 2011). Innovative design became a founding principle of the Friends of the High Line. By the same token, highly designed projects are complicated to maintain. For example, the stainless steel hardware that holds the benches together on the High Line is expensive and can only be found in obscure workshops in Long Island City, N.Y (Fisher, 2011). The stone mulch chosen by designers to evoke the original gravel ballast also poses a maintenance challenge. Gardening staff estimates that performing a task in gravel mulch takes four times longer than it normally would. When combined, these types of small decisions produce a significant impact to the maintenance budget over time (Fisher, 2011).

There is a period of trial and error to work through with any new garden. The High Line staff has eagerly and enthusiastically handled the challenges of gardening 30 feet in the air. See Table 6 for High Line gardening challenges.

**Table 6      High Line gardening challenges**

Park Element	Issues	Solutions
<b>Irrigation</b>	First section did not include grid irrigation	Water perennials by hand
<b>Gravel mulch</b>	Hard on plants, does not break down, very hot and very cold, hard to weed and move around	Budget more time for each task
<b>Core ten steel planters</b>	Heats easily, are fairly shallow	Increase watering
<b>Restrooms</b>	2 Bathrooms, for 100,000+ visitors on nice weekends	Made do with two
<b>Bed protection</b>	It is unclear sometime where beds begin and end, tourists often wander in for photos	Small, make-shift rope boundaries, signs
<b>Garden equipment storage</b>	Inadequate space included in original design for gardening supplies and tools	Added large black "job boxes" along the line where possible
<b>Concrete pathway</b>	Concrete paving is stained easily	Power wash frequently
<b>Plantings</b>	Some areas are very densely planted	Prune frequently in these sections
<b>Crowds of visitors</b>	Have many questions for gardeners	Gardeners spend much of their time acting as docents
<b>23rd Street Lawn</b>	Can't handle the crowds without looking beaten	Closed several days a week, and when it rains
<b>Elevator</b>	No service elevator for plants, trash, etc.	Make do with visitor elevator

## Events and Other Revenue Generating Components

### *Public Programs*

Public programs indirectly drive revenue at the High Line. Danya Sherman, Director of Programs, Education, & Community Engagement, explained that although most of the public events are free, they represent an integral part of the Friends of the High Line membership program. Park programs are well attended by members who enjoy engaging with familiar faces, and in the end, come away with a deeper attachment to the park. This in turn strengthens the organization's community base and engages potential park supporters. The wide array of events signifies to park boosters that the High Line continues to be a healthy, active space. Furthermore, foundations and individual patrons often prefer to support High Line programs, as opposed to park operations and capital needs (Sherman, 2011).

All told, the park administers around 300 public programs a year. The organization works with a range of groups in the city to bring in new activities such as step dancing and stargazing. The public programs team also offers a multitude of in house activities that cater to audiences, ranging from young families, to the art crowd, to history buffs. Danya Sherman collaborates with two other full-time staff members, 3 interns, and 3 part-time educators to manage public programs at the High Line. Income from school field trips, foundation grants, and corporate sponsors cover much of her staffing costs (Sherman, 2011).

### *Big Ticket Events*

The development and marketing team focuses much of their energy organizing three annual events at the High Line. Funds generated through a Chef's Dinner, Summer Party, and Spring Benefit provides for a significant share of the park's annual operating budget. Planning committees for each event include well-recognized names in New York City to generate interest and momentum. Each year the Friends send beautifully crafted invitations to park supporters and affiliates (Lindquist, 2011).

Ticket prices start at \$1,250 for the Spring Benefit. The Summer Party, however, is geared towards a younger audience, with tickets beginning at \$150, and is sponsored by Coach Men's Collection. Outside of these affairs, The High Line also opens several specific internal locations for rentals, excluding wedding receptions (Friends of the High Line, 2012).

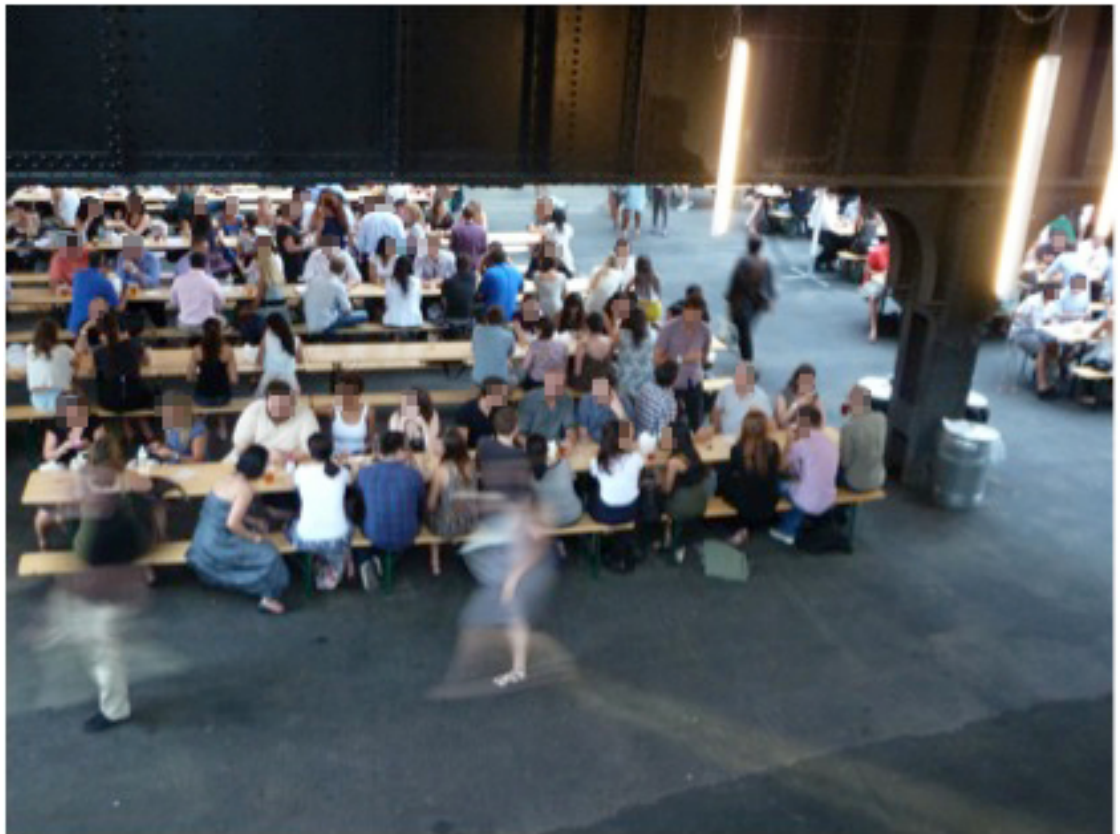
### *Concessions*

The park is exploring a self-reliant financial approach by diversifying revenue-generating activities. Food and beverage concessions yield significant income at the park and operate on a revenue sharing agreement whereby restaurateurs give the organization a percentage of proceeds earned on High Line property. However, as part of the licensing agreement with the Department of Parks and Recreation, the High Line shares earnings with New York City as income surpasses a certain level (Fisher, 2011).

In addition to food service along the line, in 2011 the park introduced a series of new vendors at a temporary beer garden below the structure at 30<sup>th</sup> Street.



Celebrity chef Tom Colicchio curated the food cart lineup at the “Lot on Tap” (**Figure 19**). The space offered options from the famed Colicchio & Sons restaurant and a wide selection of locally brewed beer. Tickets purchased at the lot entrance covered beer, wine, and food truck fare (Lindquist, 2011).



**Figure 19**      **The Lot on Tap**



## Strategies to Build Support and Resources

### *Visibility*

The Friends of the High Line were exceptionally talented at raising awareness. According to Kate Lindquist, Director of Communications and Marketing, “Name recognition, brand recognition, and photography played a very strategic role in the early life of the High Line, and it still continues today” (Lindquist, 2011). These founding tenets of the High Line public relations strategy propelled the project from an idea into reality.

### Name recognition

- “We had both been in New York long enough to know that what the press wants is famous people, or at least well-known people. So we started thinking about people we could get” (David and Hammond, 2011).
- “That is what we did at first: collect names of people who we could say supported our idea... we didn’t have anything, just names” (David and Hammond, 2011).
- The development team cultivated a well-known coterie of philanthropic individuals and organizations, such as Diane von Furstenberg and Tiffany and Co. Larger donors are recognized on small signs on the Line.
- Celebrities such as Kevin Bacon and Edward Norton emerged as vocal High Line proponents.

### Brand recognition

- A High Line logo, designed by Paula Shear at Pentagram, was adopted very early on. “The logo made the High Line look like it was a real project. It showed that we were committed to design- we weren’t going to just put some planters up there and call it a day (David and Hammond, 2011).
- In 2011, “Lot on Tap” was paired with celebrity chef Tom Colicchio; other features such as the skating rink are supported by UNIQLO, an upscale Japanese clothing company (**Figure 20**).



**Figure 20**      **Temporary UNIQLO Skating Rink below the High Line**

### Use of photography

- The High Line hired prominent photographer Joel Sternfeld to photograph the existing wildscape on the line for a year. “We had no idea at the time that these photos would come to define the project and would propel it forward as they did” (David and Hammond, 2011).
- Sternfeld’s images were displayed at a High Line exhibition at the Museum of Modern Art. “Once we were at the MoMA, people thought the High Line was definitely going to happen (David and Hammond, 2011).
- “I think of Joel as a third Co-Founder. The photos he took became an important tool for us” (David and Hammond, 2011).

### *Friends in High Places*

Robert Hammond and Joshua David built a powerful alliance of New York public figures. Mayor Michael Bloomberg, Amanda Burden, the Chair of New York City Planning Commission, and Adrian Benepe, Commissioner of New York City Parks Department were engaged in the planning process early on (Fisher, 2011). Furthermore, Robert Hammond’s college friend was elected speaker of the city council in 2002, “the second most powerful position in city government” (David and Hammond, 2011). With Amanda Burden as planning chair and Gifford Miller as city council speaker, “Two people who had been strong supporters of the High Line from the start were suddenly in positions of influence- the council’s side and the mayor’s side” (David and Hammond, 2011).

Additionally, the High Line Board of Directors is a bright, deeply engaged group of professionals who are well connected and represent a wide range of fields from politics to real estate development (Fisher, 2011).

## *Community Support*

The High Line cultivated a formidable base of community support, in addition to and the impact of powerful individuals propelling the organization. From the beginning, the Friends encouraged the public to take ownership of the park through a series of engagement strategies.

- Joel Sternfeld's images were used as a backdrop for the much-loved High Line Portrait Project. Community members were photographed in front of the photograph as if they were actually on the line. Over 1000 people were photographed, including Mayor Bloomberg and prominent neighborhood leaders. People took the pictures home, and it helped to build excitement with individuals who weren't actively helping the project (Sherman, 2011).
- Josh and I had talked in very broad terms about opening the High Line to the public, making it into a park, but we weren't architects, we weren't planners, and we didn't have an articulated vision for it. That turned out to be the key to the success of the project. We had to ask a lot of people to help us (David and Hammond, 2011).
- The Friends held endless meetings with community groups who often opposed their views. "Yet we built relationships with these groups, and found a way to voice support for their position when we spoke, even if their priorities differed from ours. We didn't want to set up a dynamic in which the High Line was perceived as being in competition with these other good interests" (David and Hammond, 2011).

### *Building momentum*

The Friends of the High Line were committed to demonstrating progress by illustrating how they were constantly gaining ground, through large and small pivotal developments along the way.

### *Pivotal developments:*

- Design Ideas Competition: Generated great enthusiasm with outlandish concepts for the space, including 720, prominently displayed submissions at a Grand Central Station exhibition (David and Hammond, 2011).
- Design competition: Catapulted the project into the public conversation with 52 professional submissions that were reviewed in *New York Times* (David and Hammond, 2011).
- Economic impact study: The numbers proved to the City and Mayor Bloomberg that the park would be a good investment with tremendous economic influence (Green, 2012).

### Challenges

- Striking, modern design that is both challenging and expensive to maintain
- Crushing crowds, particularly on weekends
- Little signage, many tourists, and unclear bed boundaries lead many visitors onto delicate plantings
- The narrowness of the space restricts traditional park activities, i.e. no bikes or dogs allowed, and visitors must remain on the pathway

### Strengths

- Groundbreaking design, has buoyed the fields of horticulture and landscape architecture
- Enthusiastic and cooperative advocates with both experience and expertise
- Tremendously loyal and talented staff
- Much needed public green space
- Overwhelming neighborhood economic impact
- Vibrant, social environment

### Section 3: Proposed Project

#### The Reading Viaduct

**Table 7      Reading Viaduct profile**

PROJECT NAME		THE READING VIADUCT	
LOCATION		Callowhill area, Philadelphia, PA	
CLIENT/DEVELOPER		Center City District	
DATE COMPLETED		In planning stages	
CONSTRUCTION COST		Estimated \$36.9 million	
SIZE		6.95 acre viaduct	
DESIGNERS		Initial renderings by Studio Bryan Hanes	
OWNERSHIP		The Reading Corporation	
PARK ADVOCATES		Center City District, Reading Viaduct Project, VIADUCTgreene	

#### Character-Defining Features

The Reading Viaduct has lain vacant since 1984. The proposed park's basic figures are detailed in Table . The massive structure slices through the Chinatown North and Callowhill neighborhoods, not far from center city Philadelphia. The tracks were laid at the turn of the century on earth fill and held high with heavy stone retaining walls. Inga Saffron of the Philadelphia Inquirer best describes the Viaduct,

Blackened by a century of coal dust, its mighty stone arches give the Loft District the feel of a fortified medieval village. Walking on the surface is like stumbling upon a lost civilization in the jungle - albeit one with 360-degree views of Philadelphia's skyline. As at the High Line, stately factories crowd against its old rails, further cloistering the space from the world. Fading painted advertisements on the sides of buildings emerge as telegrams from the past: "The bicycle with the national reputation." "Artists Colors." "100% Occupied" (Saffron, 2011).

She continues to illustrate how the structure's masonry arches and iron bridges are in need of attention, but could "easily last another century" (Saffron, 2011). The vacant line has been under serious consideration in recent years. The City of Philadelphia is reevaluating its stock of civic amenities after an intensive public planning process. The Reading Viaduct is well situated to meet the demand for parkland in a neighborhood with virtually zero green space.

The Viaduct is divided into two elevated sections and one below-grade line extending out towards Fairmount Park. Its largest segment, known as the 9<sup>th</sup> Street Branch (**Figure 21**), stretches for nearly a mile and over 6.95 acres. This branch includes the derelict Spring Garden train station, which has great potential to be restored for restaurant or retail use. At present, the main section is still owned by the Reading Corporation. A smaller piece known as the "SEPTA Spur," is owned by Philadelphia's regional transit authority. The Spur extends west from the Viaduct for approximately .6 acres (Haynes, 2012).





**Figure 21      Wintertime view of downtown Philadelphia from the 9<sup>th</sup> Street branch**

SEPTA<sup>11</sup> is also in possession of the long-forgotten “City Branch” that connects to the Spur and dips 25 feet below grade before heading west towards the Schuylkill River. The City Branch includes sections that are open to the streets above,

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<sup>11</sup> Southeastern Pennsylvania Transportation Authority

and darker, enclosed tracts farther along. The Reading Viaduct, SEPTA Spur, and the City Branch make up a 3-mile vacant corridor that includes spectacular views into the city, an intimate connection with area industrial history, and the opportunity to connect Philadelphians in a range of popular neighborhoods (VIADUCTgreene, 2012).

### History

The Reading Viaduct was built in 1893 in conjunction with the Reading Terminal, a beautiful, Italian Renaissance head house at 12<sup>th</sup> and Market Streets. The structure held a busy passenger station, train depot, and the Reading Company headquarters. The popular open-air market replaced by the building became the new Reading Terminal Market. The marketplace was relocated below the train shed, to the rear at 12<sup>th</sup> and Filbert Streets. The immense head house accommodated 13 trains, all arriving along the Reading Viaduct to the north (VIADUCTgreene, 2012).

The Viaduct included four train lines and took nearly two decades to construct. Upon its completion, freight traffic was diverted along the newly depressed City Branch. The 9<sup>th</sup> Street Branch evolved into a busy commuter corridor, until transit lines eventually changed. The Reading Terminal closed in 1984 as Philadelphia's Center City Commuter Tunnel opened to rail traffic but later remodeled as part of the Pennsylvania Convention Center. The Reading Viaduct was abandoned entirely after the last train trundled past in November 1984 (VIADUCTgreene, 2012).

The Reading Viaduct quickly evolved into a diverse urban wildscape (**Figure 22**) including species such as *Paulownia tomentosa*, *Rhus spp.*, *Eupatorium spp.*,

*Solidago spp.*, *Aristida spp.*, *Poa spp.*, and many more. See Appendix D for a preliminary Viaduct plant list. In 2003, the Reading Viaduct Project (RVP) held its first community meeting to begin advocating for the site's preservation as public parkland.



**Figure 22      Looking north from the 9<sup>th</sup> Street Branch**

The Reading Viaduct Project has worked alongside several other groups in Philadelphia to advance the park proposal. VIADUCTgreene, an advocacy group, has

played an important role in attracting attention to the project through tours, lectures, and neighborhood meetings. They are a 501(c) 3 organization that promotes the restoration of the City Branch in addition to the Reading Viaduct (vanMeter, 2011). In 2010, RVP began collaborating with Center City District<sup>12</sup> to advance the project as a defining residential amenity. After several studies and much debate, RVP and Center City District released initial design renderings for the SEPTA spur section of the Viaduct March 2012.

### Context

In Philadelphia's heyday, the Callowhill and Chinatown North neighborhoods were part of a booming industrial district. Large warehouses and factories producing everything from newspapers to locomotives grew alongside the Reading Railroad just north of downtown Philadelphia. The area is slowly emerging from the widespread desertion of these industrial structures and the subsequent loss of jobs and residents.

Recently the area has been showing signs of life. Developers have begun rehabilitating some of the historic warehouses to the west and residents are moving back into the newly dubbed, "Loft District." Nevertheless, few neighborhood amenities or services remain in the vicinity (Clinton, 2008). Residents also complain that the area is poorly maintained and unsafe after dark. Despite the odds, some

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<sup>12</sup> The Center City District (CCD) is a business improvement district that works to keep Philadelphia's downtown clean, safe, and beautiful. CCD is authorized under Pennsylvania's Municipality Authorities Act



popular bars and restaurants and a host of growing businesses have taken up in the neighborhood.



**Figure 23    The Viaduct curving through the grid in Callowhill**

The Callowhill neighborhood holds great potential. Its central location, historic infrastructure, and building assets bode well for its future as a thriving mixed-

use district (**Figure 23**). The Reading Viaduct is well equipped to revitalize the area and according to a City Planning Commission analysis of the Callowhill area,

...the abandoned Reading Viaduct west of 9th Street presents a unique opportunity to provide a new kind of open space for residents of Callowhill and Philadelphia at large. A strong fabric of sizeable and historic buildings provides a framework for a mid-rise, mixed-use neighborhood organized around a signature linear park system (Randall, 2008).

The study continues that urban infill would help mend the “physical and psychological gap” created by I-95 and I-676, while generating activity between Center City and developing neighborhoods to the north (Randall, 2008). Another report produced by the Center City District highlighted how 32% of the land in the Callowhill Area is either vacant or taken up by surface parking lots (Center City District, 2011).

A group of area residents, including the Chinatown Development Corporation (CDC), is less enthusiastic about the Reading Viaduct proposal. Chinatown residents are suspicious of large civic initiatives after a ballpark and casino were proposed for the neighborhood in recent years. The parkland proposal is a harbinger of neighborhood change, and perhaps impending gentrification. The CDC successfully derailed a neighborhood improvement district initiative proposed by Center City District and the Callowhill Neighborhood Association. The improvement district was presented as a funding mechanism for greening the neighborhood and the Viaduct. The NID proposal is detailed in the Strategies to Build Support and Resources section below.

### Organization, Management, and Leadership

There are several organizations involved in promoting the Reading Viaduct. At present, the Reading Viaduct Project is working with Center City District (CCD) on designs for the SEPTA Spur. The William Penn Foundation and Poor Richards Charitable Trust provided the funds for CCD to manage the design work in partnership with the City of Philadelphia Department of Commerce and the Department of Parks and Recreation (Haynes, 2012).

Center City District has been instrumental moving the project forward. Paul Levy, President and CEO of Center City District, described how his team sought to “fly under the radar” during the first year managing the Reading Viaduct proposal, to quell speculative real estate buying in the neighborhood (Levy, 2011). This was well intentioned but added to the overall sense of confusion regarding the future of the Reading Viaduct. Nevertheless, CCD has been in communication with the Reading Corporation in recent months regarding the Viaduct property. Reading owes \$1.4 million in back taxes on the structure, and has been asked to remediate surface toxins (Saffron, 2011). "Reading has owned the viaduct for 100 years and they are in no big hurry to part with it," Levy explained. "They see what's happened in New York" (Saffron, 2011). However, CCD is optimistic after recent conversations with the Reading Corporation, and sees the development of the SEPTA Spur as a feasible first step.

According to Paul Levy, the ideal future management scenario for the park is similar to the Central Parks Conservancy model adopted by the Friends of the High Line, both of New York City. The Viaduct would be a city-owned asset, holding a base level of maintenance responsibility through the Department of Parks and

Recreation. In this arrangement, a separate not-for-profit corporation would raise funds for the park (Levy, 2011).

### Restoration

Center City District estimates that the cost of total renovation and remediation of the Viaduct and SEPTA Spur to be \$37 million (Center City District, 2011). These costs encompass a proposal to:

- Remove tracks and dispose of contaminated wood ties
- Add clean fill for pervious surfaces; replace tracks with new ties
- Add landscaping, recognizing what is already thriving on the tracks
- Renovate or add new railings, new walkways, and finishes
- Construct pathways

CCD consulted with John Alschuler, who is on the Board of Directors at the Friends of the High Line and an early advocate for the line. In his words, “First, pay attention to the potential environmental hazards of the lead paint on all the steel in the railings, the superstructures, etc. Remediation of these elements was far more expensive for us than remediation of the soils’ (Center City District, 2011). Robert Hammond corroborates this in the Co-Founder’s memoir. “Safely removing the lead paint from the High Line and repainting it was the most expensive part of the construction contract” (David and Hammond, 2011). The stone retaining walls of the Reading Viaduct do not require this treatment (Saffron, 2011) but the rust and



corrosion on several of the Viaduct's steel bridges are in need of attention. **Figure 24** shows the Viaduct's derelict Spring Garden Station. The original rails and centenary structures framed by wild *Eupatorium spp.* are depicted in **Figure 25**. The Reading Corporation unexpectedly scrapped many of the rails along the viaduct in Spring 2011.



**Figure 24**      **The abandoned Spring Street Station**



**Figure 25** The Reading Corporation scrapped the original rails in the spring 2012, leaving the catenaries

Remediation of toxic substances at the Reading Viaduct is minimal, assuming that the process would involve a balanced cut and fill project, with no residual soil or ballast being taken off site. CCD discussed treatment options with the Pennsylvania Dept. of Environmental Protection and performed test digs to determine the level of

contamination on the Viaduct. Recommendations included adding, "... \$1,400,000 contingency for environmental remediation, in case more PCB hazardous waste needs to be disposed of or other environmental issues are uncovered. These estimates are based on EPA being reasonable in its interpretation of PCB removal requirements, which we believe is likely" (Center City District, 2011). These estimates are low compared to the High Line remediation figures.

### Events and Other Revenue Generating Components

The Reading Viaduct Project, VIADUCTgreene, and Center City District have engaged the Philadelphia community in various public meetings, tours, and lectures in recent years. Presentations held in conjunction with Design Philadelphia in fall 2011 were particularly helpful in informing the public about the park. The opening party for the festival was held in the home of RVP founders, which is adjacent to the line. The event included small keepsake bouquets of plant material gathered on the line, and projections onto the Viaduct. VIADUCTgreene and RVP held informational lectures and walks throughout Design Philadelphia 2011. VIADUCTgreene also designed a large exhibition as part of Philadelphia's Park(ing) Day 2011 and has led numerous tours and neighborhood presentations over the year. The advocacy groups have complementary interests and have been successful reaching the Philadelphia community. Center City District has held several large public meetings and a host of small neighborhood events to present information and receive feedback on neighborhood interests.

## Strategies to Build Support and Resources

### *Economic Impact Analysis*

Center City District commissioned an economic impact study of the Reading Viaduct in 2010. The report highlighted how complete Viaduct removal would result in a 1% to 4% increase in area property values. The economic impact of redeveloping the Viaduct was estimated to have a 4% to 8% effect on adjacent real estate values (Jones Lang LaSalle, 2010). CCD also worked with an architectural firm to determine building and demolition costs. Full demolition of the Viaduct was estimated to cost \$50 million, with full-fledged restoration totaling \$37 million (Center City District, 2011). These findings provide critical bargaining material for CCD to employ in advancing the project.

### *Utility easements*

A fundraising strategy proposed by the City of Philadelphia involves long-term rental payments by telecommunications companies for mounting new cabling along the viaduct. Verizon FIOS networks are already installed across the city, including in Fairmount Park. The Viaduct is presented as an ideal candidate for new utilities due to its linear nature (Jones Lang LaSalle, 2010). However, considering that the views into the city represent a main attraction on the Viaduct, this scenario may be less appealing in practice.

### *State and Federal Funding*

CCD has received funding from several local philanthropies for initial studies and design work. The Jones Lang LaSalle Report prepared for the City of Philadelphia has named the following potential state and federal funding sources:

#### State grants

- Department of Conservation and Natural Resources funds projects related to Rails-to-Trails, Community Recreation and Conservation, Land Trusts, Pennsylvania Recreational Trails, etc
- Growing Greener Grant

#### Federal grants

- Community Development Block Grants
- Recreational Trails Programs
- Transportation Equity Act for the 21<sup>st</sup> Century

### *Neighborhood Improvement District*

In fall 2011, the Callowhill Neighborhood Association organized a Neighborhood Improvement District (NID) proposal with the help of Center City District. A NID is a special tax assessment to property owners in the vicinity to be used towards public-use improvements within the district. The arrangement was initially planned as a source of revenue for the Reading Viaduct, and evolved into a

general fund to clean and green the neighborhood. Although it was well-intentioned, the Callowhill NID was the source of much discord and controversy. A group of residents formed a coalition against the proposal and successfully reversed the decision. Similarly, the Friends of the High Line experienced the same rejection of a proposed Business Improvement District (BID) in the lower west side.

### Challenges

- Funding
- Political tension
- Initial confusion on project leadership
- Acquiring the Reading Viaduct
- Callowhill has yet to be seen as a desirable place to live or work, but with rising real estate prices this is expected to change

### Strengths

- Enthusiastic and cooperative advocates with both experience and expertise
- Accessible via public transit, close proximity to downtown Philadelphia
- Pent up demand for green space in the Callowhill area
- Opportunity to capitalize on momentum with Green 2015 plan in Philadelphia to transform 500 acres of vacant or underused land into new parkland by 2015 to improve quality of life and drive economic growth (PennPraxis, 2010)
- Historic infrastructure, beautiful views (**Figure 26**), opportunities for neighborhood connections





**Figure 26**      **A view of downtown Philadelphia framed by wild vegetation along the Viaduct**

## Major Themes

### *Leadership*

Visionary leadership emerged as an essential ingredient for success. The most effective leaders had the tendency to ask for help from everyone, and not only from powerful people. These groups built impressive constituencies through hard work, collaboration, and a positive, consensus-building approach. When this was combined with transparency and careful strategy, the projects gained an air of inevitability and popular interest expanded. This in turn helped to build political and community support.

Robert and Josh are both dynamic, warm, painfully honest people. They'll sell their ideas to anyone. They are charismatic, very real people who can connect with others at all levels. They're able to appeal to the mayor, senators, and people from all over. They are fairly different from each other, but they do have complementary skill sets (Fisher, 2011).

There are a zillion reasons not to do it. You have to focus on the reasons to do it (David, 2011).

...They're always looking five years in advance (Fisher, 2011).

Sarah and John are pioneers and crusaders. This could not have been done without them (Levy, 2011).



The citizens group was fundamental. They did very, very, very good work (Wiedenmann, 2011).

The Citizens Group had two passionate leaders... Everything is owed to them. They were true experts with considerable influence (Letzner, 2011).

### *Collaboration*

It is no surprise that interviewees frequently remarked that founding group members worked well with others. These individuals brought people together and fostered the sense that there was enough support and power in numbers to move from planning to action. The groups were sometimes small and nimble rather than large and imposing. The Citizens Group at Südgelände is an example of a concentrated, exclusive group that wielded incredible political influence. They functioned as a coterie of dedicated professionals. The Citizens Group did not operate by community consensus, which can be cumbersome. The Bridge of Flowers and the High Line operated a broader coalition. They courted various community groups and attempted to engage as many individuals as possible.

Robert was a great phoner of people, a bringer of people to things (David and Hammond, 2011)

You have to work with your local partners.... neighbors, mayor, businesses, etc. This is why we were successful because everyone rallied around the flag that Robert and Josh had raised... It brought in lots of support (Lindquist, 2011).

It's a lot about connections. It has helped that Allen Greenberger, the Chair of the City Planning Commission, is a friend. And we work closely with Mike *DiBerardinis*, the Commissioner of Parks and Recreation. This has eased the path (Levy, 2011)

Everything was collaborative (David and Hammond, 2011).

The business association went to the water district, and all the other clubs and major businesses in town. We had to do something.... we founded the Bridge of Flowers Preservation, Inc. (Taylor, 2011).

They had their ears wide open. They had a traffic planner, landscape planners... they were truly a group of experts. We had students doing internships who would make plans to show how the park would be connected to the surrounding area (Letzner, 2011).

The successful models are about people who understood the word *compromise* (Darke, 2012).

At the Promenade Plantée, the City developed the park, and the French Federal Government redeveloped the former train station at the Bastille into an opera house. They fought about it. And so, the park ends in a wall...there's no connectivity. You have to go down from the park and walk a block to get into the opera house. The two initiatives should have connected (Hammond, 2011).

It really has to be a whole town thing... the goal is to engage as many people in the community as possible (Taylor, 2011).

## *Momentum*

Park projects gained a sense of inevitability by creating wins along the way, small and large. The founding groups also built momentum by implementing their plans before they were fully complete, and while community interest was still high. This was illustrated at the High Line and the Promenade Plantée. The parks were opened in phases. The Reading Viaduct is using a similar approach.

Research sites also capitalized on momentum by connecting their project to larger civic initiatives. The Promenade Plantée and Natur Park Südgelände were each components of comprehensive urban revitalization plans. This accelerated project implementation.

But one of the keys to the High Line's success was in always showing progress, even if it was a really small step (David and Hammond, 2011).

The MoMA exhibit was a symbolic step, too. It didn't change anything about the legal, political, or financial hurdles that lay ahead. But once we were at the MoMA, people thought the High Line was definitely going to happen (David and Hammond, 2011).

We worked with Congressman Nadler to secure federal appropriations funding that could be used to pay for a design contract in advance of City ownership, so when the High Line changed hands, the design would already be done and the City could start building immediately. The clock was ticking... (David and Hammond, 2011).

In the beginning, we planted a small piece of the railway to demonstrate to the public how it would work (Viard, 2011).

We are focusing on the second piece first. We are also in a good conversation with Reading... and now we're moving forward. We can start with a 5 million dollar project and keep moving in that direction. We're not making promises for the future...we're implementing this in steps (Levy, 2011).

It's a positive opportunity in that Mayor Nutter is interested in greening and parks. He's made it a major priority... And the city is already interested in North Broad Street (Levy, 2011).

The reunification of Germany and the rapid development in Berlin that followed required ecological compensation. In our case, the compensation involved the transfer of the property rights from the railway company at Potsdamer Platz to the state of Berlin.... Plans for Südgelände were written into the agreement, recognizing it as an official nature protection area (Langer, 2011).

### *Framing the argument*

Park advocates turned problems into opportunities by reframing their arguments. They understood that community members want to rally around a positive course of action to solve pressing neighborhood issues such as blight and neighborhood disinvestment. After discerning the most compelling argument for the cause, the groups engaged experts to provide the supporting research. *This strategy was very effective and won considerable political and community support at every research site.*

The water district agreed to preserve the bridge because it wasn't easy to do otherwise... it would be too expensive (Taylor, 2010).

We highlighted it as an irreplaceable historic resource... The flyer read, 'Remember Penn Station (Hammond, 2011)

The commonplace way to look at it is as blight. This turned blight on its head...this could be an extraordinary engine for economic growth. We put numbers to it...The economic feasibility study in 2002 triggered Bloomberg to decide to establish new policy in favor of reusing the High Line (David, 2011).

...The report showed that demolition would not improve property value to the degree that park development would (Levy, 2011).

An economic impact analysis was done by the Marie de Paris, who piloted the project (Viard, 2011).

We lead a traffic study that proved that the station they planned to build was old fashioned even before it was built. Today trains are built outside of the stations and moved elsewhere. They aren't built inside the city (Letzner, 2011).

There are laws in Germany where if you destroy nature, you must compensate somehow... with money or with land... the contract was written, saying 'we give this to you under the prerequisites that you'll develop it into a nature park' (Wiedenmann, 2011).

The ecological report said that it was the most critical ecological habitat in Berlin. You couldn't say that it wasn't worthwhile (Wiedenmann, 2011).

## Conclusion

Transforming a stretch of abandoned railway into an attractive green space can be overwhelming. This is particularly true today in cash-strapped cities. Big name donors are few and far between, and many highly vocal residents argue for “better” use of local funds. For this reason, it is incumbent upon viaduct proponents to harness positive energy within the community and direct it towards the project at hand.

These parks have fundamentally changed neighborhoods for the better. Rail projects in Paris, Berlin, Shelburne Falls, and Manhattan have benefitted local property values, promoted a strong sense of place, and injected wonder and vitality into the urban realm. Furthermore, these parks bring industrial history to life and bring a bit of wilderness into the community. These basics need to be communicated.

The Reading Viaduct in Philadelphia is perfectly poised to draw from the successes and challenges of related projects. The pent up demand for green space in the Callowhill neighborhood, the increased political interest in public parks, and the growing local support for the project are aligning brilliantly. Philadelphia is part of a developing list of communities that are rethinking the possibilities for their own abandoned viaducts. Advocates for future projects play a critical role. It is upon these individuals to embrace the political arena, cultivate a constituency, and tap into funding sources. It is essential to sell the project with power and conviction. In the end, groups that invoke a positive, collaborative approach that is constantly progressing and illuminating the positive will carry the day.

## Chapter 5

### RECOMMENDATIONS

#### *Reach out*

- Be inclusive. Recommendations should come from the neighborhood.
- Bring people together and encourage the sense that there is enough support and strength in numbers to move forward.
- These design projects can be exciting and attract a great deal of attention. For this reason, it is imperative that leaders *give due credit to everyone else involved*. Groups were more successful when the ego was subdued and organizers employed a positive, team building approach.
- Community-based programming is an ideal place to begin building local interest. These events can be very simple, such as photography portrait booths, community art projects, meetings with pizza, and similar fare. These appeal to a wide spectrum of people, and engage individuals who may not be actively involved in the project.
- Design charrettes and public planning sessions are other great strategies to give project status updates and receive critical community input.

#### *Be visible*

- Visual media plays a huge role in getting the message out today. *Use photography, diagrams, and maps.*



- Websites are essential; update often and illustrate project progress.
- When the organization is ready, public events such as design charrettes and competitions can attract media attention and public interest.
- Exhibitions of park design work, documentary photography, public art inspired by the park are compelling ways to build community support for a project. It is effective when work is displayed in highly trafficked areas such as museums, train stations, or a city hall.

### *Be transparent*

- Clear statements are important. Build trust by explaining the logic behind your project. People need to understand the background before lending their support.
- Clear ownership is also critical. What is the ownership status of the structure? Be straightforward so as to build confidence in your organization.

### *Build a powerful argument*

- Do not be afraid to show the ugly, forgotten sides of the site. Although it is difficult to create a new public perception of abandoned spaces, park advocates can use negative impressions to their advantage. Sanborne maps illustrating the extent of decay and candid images of dereliction will elicit frustration over community disinvestment, and inspire action. People want to come together to solve pressing neighborhood issues.
- Lead an economic impact study, vegetative survey, engineering survey, or whatever research will win support in the end. Illustrate the abandoned structure as a positive opportunity, not an unsolvable problem.

### *Embrace politics*

- Choose partners who complement your strengths. At the same time, it is critical to maintain a positive working relationship with the stakeholders who do not.
- Engage influential community members and politicians in your coalition. Remember that connections are everything. The challenge is to manage these interests while moving the project forward.

### *Sell it with power and conviction*

- How is the proposed park an asset to the community? How will it improve quality of life? Put these answers into number and graphics that people can easily understand and express.
- Avoid using jargon or academic terms.

### *Timing is everything: build momentum*

- Show progress with victories along the way, small and large. Always give the perception that the project is moving forward.
- Celebrate successes and present obstacles as opportunities.

### *Plan for the future*

- Plan for both the long-term operational costs and capital construction costs. *Long-term figures will be closely related to the level of maintenance required by the design.*
- Have design work ready to be implemented when ownership transfer occurs. Always be ready for the next step. Plan and be prepared for what happens after the railway becomes a public space.

- Determine the parameters that will influence design decisions. Estimated annual visitation for the site? Restrooms? Number of access points? Handicap accessibility? How will it be cultivated, and how many individuals will maintain it?
- Understand that park staff on elevated lines spends a lot of time answering questions. Hire friendly, open individuals to perform gardening duties.

### *Design strategically*

- Balance the projected operational budget with design. There is a fine line between high design and easy maintenance. Knowing this, design features under consideration include planting vocabulary, nature of paving system, and custom made vs. off the shelf details. The simple, unencumbered design is sometimes more appealing and is usually easier to manage.
- Let site character dictate the design. Industrial relics add authenticity, depth, and history to a site. Preserve rails, catenaries, and historic elements whenever possible.
- Respond to user needs. Design for people, not awards.
- Consult with gardeners, urban ecologists, and professionals with experience maintaining public spaces.
- Create a social space by including sun and wind protection, adequate seating, and places to see and be seen. Concession and nearby restrooms would also be ideal.
- The park should be easily accessible from surrounding area.
- Water features can be pleasant, but be aware that they are *prone to breaking down* on elevated lines and can be of place in the industrial realm.
- Beware of including a lawn in the site design. Small lawns and large visitation numbers do not go well together.
- Include spaces to store gardening tools, as well as elevators or ramps for removing green material and transporting plants and garbage.

- Path width should have adequate room for gardening carts, wheel chairs, and people to pass each other.
- Open views into the city are a large part of the magic on elevated parks. Viewsheds can be obscured by future development. To avoid this, establish views at intersections and consider rezoning the corridor to prevent build up along the line.
- The park does not need to connect neighborhoods or real estate. It can be an escape from the streets, a place of respite, and an amenity to make urban life more livable.

### *Get the money*

- Establish a clear, compelling vision to drive development.
- Keep individual supporters in the loop via frequent construction updates and messages.
- Start fundraising early on in the process. This provides sense of legitimacy to the project and builds stakeholder confidence in the organization. Initial resource needs include items such as legal fees for disputes with property owner, impact studies, staff time, and public relations materials.
- Consider hiring an individual to lobby for federal grants. Past projects have been funded by:
  - Massachusetts Small Cities Community Development Block Grant (The Bridge of Flowers)
  - Anti-congestion and air-quality grant (The Bloomingdale Trail)
  - EPA Revolving Loan Fund for brownfield sites (The Atlanta Beltway)
  - Allocation from Congressional Transportation Bill (The High Line)

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**Appendix A**  
**QUALITATIVE CODING SYSTEM**

ED- Economic development

CN- City as nature

UR- Urban revitalization

CTX- Context

HLBZ- High Line Buzz

MGMT – Management

MTN- Maintenance

FN- Finances

CHPR- Cheaper model

HTLN- How to launch

DSN – Design values

LDR- Leadership

SFTY- Safety

CNXN- Connection

RSTN- Restoration

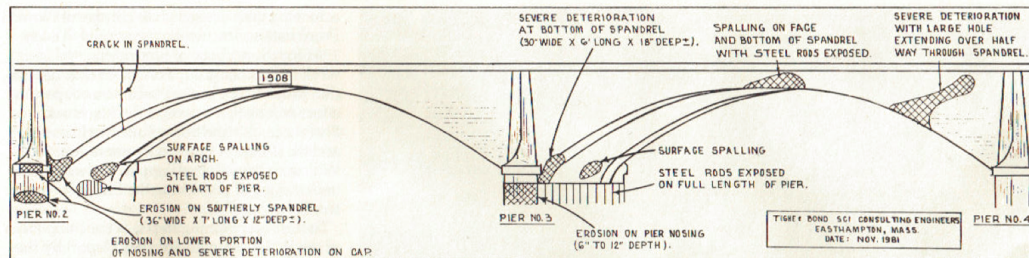
CMTY- Community

PGRM- Programming

\$\$ - Expensive

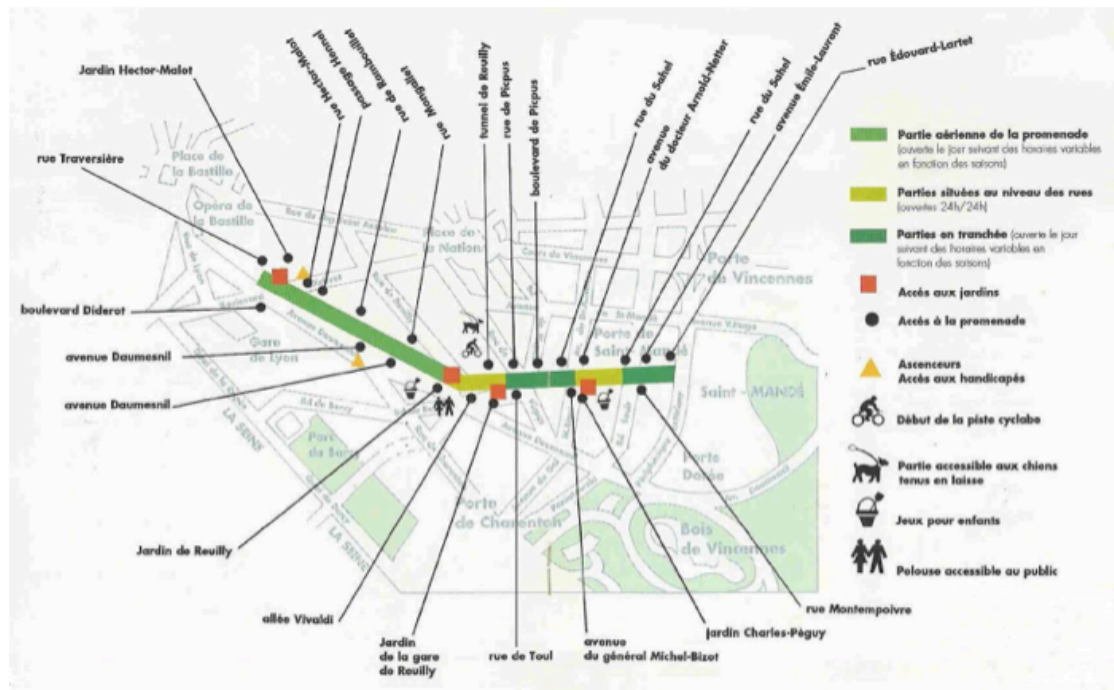
## Appendix B

### IMAGES OF THE 1983 BRIDGE OF FLOWERS RESTORATION



## Appendix C

## MAP OF THE PROMENADE PLANTÉE



## Appendix D

### PRELIMINARY LIST OF PLANTS FOUND ON THE READING VIADUCT

Compiled by Marion A. Holmes and Alfred E. Schuyler, December 2011

On December 11th, 2011, we visited the Reading Viaduct in Philadelphia and did an inventory of plants growing on the viaduct. This preliminary survey provided a chance to view and identify plants that are visible in winter. Specimens were collected and pressed, and will be housed in the herbarium of the Academy of Natural Sciences. Over 50 species were found at this first count. Special thanks are due to David Hewitt and Philip Baiocchi for their assistance.

Botanical Name	Common Name	Family
<i>Ageratina altissima</i> (L.) King & H. Rob.	White Snakeroot	Asteraceae
<i>Ailanthus altissima</i> (Mill.) Swingle	Tree of Heaven	Simaroubaceae
<i>Apocynum</i> <i>cannabinum</i> L.	Indian Hemp, Common Dogbane	Apocynaceae
<i>Aristida oligantha</i> Michx.	Prairie Threawn	Poaceae
<i>Artemisia vulgaris</i> L.	Common Wormwood	Asteraceae
<i>Asclepias syriaca</i> L.	Common Milkweed	Apocynaceae
<i>Buddleja davidii</i> Franch.	Butterfly Bush	Scrophulariaceae
<i>Bulbostylis</i> <i>capillaris</i> (L.) Kunth ex C.B. Clarke	Densetuft Hairsedge	Cyperaceae
<i>Cardamine hirsuta</i> L.	Hairy Bittercress	Brassicaceae
<i>Catalpa</i> sp.	Catalpa	Bignoniaceae
<i>Celastrus</i>	Oriental Bittersweet	Celastraceae

<i>orbiculatus</i> Thunb.		
<i>Chenopodium album</i> L.	Lamb's Quarters	Amaranthaceae
<i>Conyza canadensis</i> (L.) Cronquist	Canadian Horseweed	Asteraceae
<i>Cyperus</i> sp.		Cyperaceae
<i>Daucus carota</i> L.	Queen Anne's Lace	Apiaceae
<i>Elaeagnus umbellata</i> Thunb.	Autumn Olive	Elaeagnaceae
<i>Fallopia japonica</i> (Houtt.) Ronse Decr.	Japanese Knotweed	Polygonaceae
<i>Galium</i> sp.	Bedstraw	Rubiaceae
<i>Glechoma hederacea</i> L.	Ground Ivy	Lamiaceae
<i>Juniperus virginiana</i> L.	Eastern Red Cedar	Cupressaceae
<i>Juncus dudleyi</i> Wiegand	Rush	Juncaceae
<i>Lepidium virginicum</i> L.	Virginia Pepperweed	Brassicaceae
<i>Lonicera japonica</i> Thunb.	Japanese Honeysuckle	Caprifoliaceae
<i>Magnolia grandiflora</i> L.	Southern Magnolia	Magnoliaceae
<i>Malus</i> sp.	Crabapple	Rosaceae
<i>Melilotus alba</i> Medic.	White Sweet Clover	Fabaceae
<i>Miscanthus sinensis</i> Andersson	Chinese Silvergrass	Poaceae
<i>Oenothera biennis</i> L.	Common Evening Primrose	Onagraceae
<i>Paulownia tomentosa</i> (Thunb.) Siebold & Zucc. ex Steud.	Princesstree	Paulowniaceae
<i>Persicaria pensylvanica</i> (L.) Small	Pennsylvania Smartweed	Polygonaceae
<i>Phragmites australis</i> (Cav.)	Common Reed	Poaceae



Trin. ex Steud.		
<i>Phytolacca americana</i> L.	Pokeweed	Phytolaccaceae
<i>Plantago</i> sp.	Plantain	Plantaginaceae
<i>Plantago lanceolata</i> L.	Narrowleaf Plantain	Plantaginaceae
<i>Poa annua</i> L.	Annual Bluegrass	Poaceae
<i>Populus grandidentata</i> Michx.	Bigtooth Aspen	Salicaceae
<i>Prunus serotina</i> Ehrh.	Black Cherry	Rosaceae
<i>Rhus typhina</i> L.	Staghorn Sumac	Anacardiaceae
<i>Rosa multiflora</i> Thunb.	Multiflora Rose	Rosaceae
<i>Rubus laciniatus</i> Willd.	Cutleaf blackberry	Rosaceae
<i>Rubus pensilvanicus</i> Poir.	Pennsylvania Blackberry	Rosaceae
<i>Rubus phoenicolasius</i> Maxim.	Wineberry	Rosaceae
<i>Schizachyrium scoparium</i> (Michx.) Nash	Little Bluestem	Poaceae
<i>Senecio vulgaris</i> L.	Common Groundsel	Asteraceae
<i>Setaria faberi</i> Herm.	Giant Foxtail	Poaceae
<i>Setaria viridis</i> (L.) P. Beauv.	Green Foxtail	Poaceae
<i>Silene latifolia</i> Poir.	White Campion	Caryophyllaceae
<i>Solanum americanum</i> Mill.	American Black Nightshade	Solanaceae
<i>Solidago nemoralis</i> Aiton	Gray Goldenrod	Asteraceae
<i>Stellaria media</i> (L.) Vill.	Common Chickweed	Caryophyllaceae
<i>Symphyotrichum lanceolatum</i> (Willd.) G.L. Nesom	White Panicle Aster	Asteraceae

<i>Taraxacum officinale</i> F.H. Wigg	Common Dandelion	Asteraceae
<i>Triodanis perfoliata</i> (L.) Nieuwl.	Clasping Venus' Looking Glass	Campanulaceae
<i>Verbascum thapsus</i> L.	Common Mullein	Scrophulariaceae

**Appendix E**

**APPROVED PROTOCOL FROM THE UNIVERSITY OF DELAWARE  
HUMAN SUBJECTS REVIEW BOARD**



RESEARCH OFFICE

210 HULLIHEN HALL  
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DATE: May 25, 2011

TO: M. Ashby Leavell, Masters in Public Horticulture  
FROM: University of Delaware IRB

STUDY TITLE: [244741-1] Wild Abandon and a New Frontier: Converting Vacant Railways  
into Urban Greenways

SUBMISSION TYPE: New Project

ACTION: DETERMINATION OF EXEMPT STATUS  
DECISION DATE: May 25, 2011

REVIEW CATEGORY: Exemption category # 2

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has determined this project is EXEMPT FROM IRB REVIEW according to federal regulations.

We will put a copy of this correspondence on file in our office. Please remember to notify us if you make any substantial changes to the project.

If you have any questions, please contact Elizabeth Peloso at 302-831-8619 or [epeloso@udel.edu](mailto:epeloso@udel.edu). Please include your study title and reference number in all correspondence with this office.